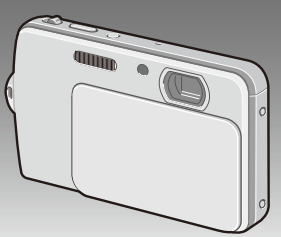
Panasonic

Owner's Manual for advanced features

Digital Camera

Model No. DMC-FP7
DMC-FP5

LUMIX



Before connecting, operating or adjusting this product, please read the instructions completely.

SDXC™

VQT3F23

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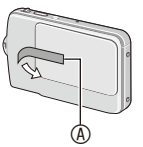
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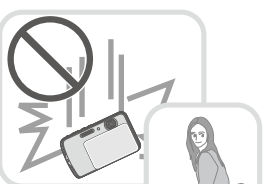
Precaution

Optimal use of the camera



Fully peel off the strip of tape Ⓐ from the lens cover before using the camera.
Do not strongly shake or bump the camera by dropping or hitting it.
Do not subject to strong pressure.

- When you use in the following cases, the camera may malfunction, recording pictures may become impossible, or the lens, the LCD monitor or the external case may be damaged.
  - Dropping or hitting the camera.
  - Leaving the camera in your trousers pocket when you sit down or forcefully insert it into a full or tight bag etc.
  - Attaching any other items to the strap that's included with your camera.
  - Strongly pressing the lens or the LCD monitor.



This camera is not dustproof, drip-proof nor waterproof. Be particularly careful in the places with a lot of dust, sand or water.

- When using the camera in the following places, be careful not to allow liquids, sand and other foreign matter to get into the space around the lens, buttons etc. as they may cause the camera to malfunction.
  - Places with a lot of sand or dust.
  - Places where water can come into contact with this unit (e.g. on a rainy day or on a beach).



If the unit does not operate normally, please contact the dealer where you purchased the camera or the repair service center.

■ **About Condensation (When the lens is fogged up)**



- Condensation occurs when the ambient temperature or humidity changes. Be careful of condensation since it causes lens stains, fungus and camera malfunctions.
- If condensation occurs, turn the camera off and leave it for about 2 hours. The fog will disappear naturally when the temperature of the camera becomes close to the ambient temperature.

Standard Accessories

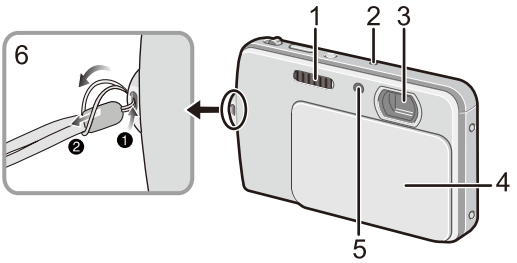
Check that all the accessories are supplied before using the camera.

- The accessories and their shape will differ depending on the country or area where the camera was purchased.
  For details on the accessories, refer to Basic Owner's Manual.
- Battery Pack is indicated as **battery pack** or **battery** in the text.
- Battery Charger is indicated as **battery charger** or **charger** in the text.
- SD Memory Card, SDHC Memory Card and SDXC Memory Card are indicated as **card** in the text.
- **The card is optional.**
  You can record or play back pictures on the built-in memory when you are not using a card.
- If any accessories are lost, customers in the USA and Puerto Rico should contact Panasonic's parts department at 1 800 833-9626 and customers in Canada should contact 1 800 99-LUMIX (1-800-995-8649) for further information about obtaining replacement parts.

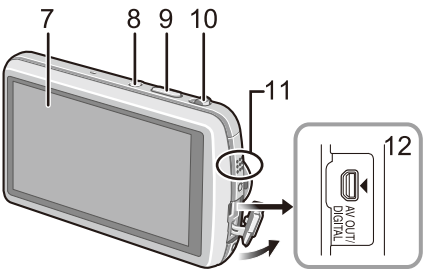
■ **About illustrations in this manual**
The procedure is described for DMC-FP7 as an example.

Names of the Components

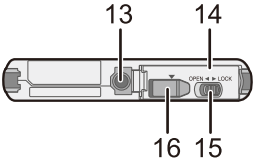
1 Flash (P51)
2 Microphone
3 Lens (P5, 120)
4 Lens cover (P18)
5 Self-timer Indicator (P57)
AF Assist Lamp (P85)
6 Strap eyelet
• Be sure to attach the strap when using the camera to ensure that you will not drop it.



7 Touch Panel / LCD Monitor (P8, 47, 116, 129)
8 Camera ON / OFF switch (P21)
9 Shutter button (P22)
10 Zoom lever (P48)
11 Speaker
12 [AV OUT / DIGITAL] socket (P105, 107, 111)



13 Tripod receptacle
14 Card / Battery door (P14)
15 Release lever (P14)
16 DC coupler cover (P15)
• When using an AC adaptor, ensure that the Panasonic DC coupler (optional) and AC adaptor (optional) are used. For connection details, refer to P15.



How to Use the Touch Panel

This touch panel is a type that detects pressure.
You can operate the camera by directly touching the icons or images on the LCD monitor (Touch Panel) with your finger or the supplied stylus pen.

Touch To touch and release the touch panel.	**Drag** A movement without releasing the touch panel.
	
Use this to select icons or images, or to set the items. • It may not operate properly when multiple icons are touched simultaneously, so try to touch the center of the icon.	Use this to see the next/previous image by dragging horizontally or change the range of the displayed image. This can also be used to switch the page by operating the slide bar.

Note



- If you use a commercially available liquid crystal protection sheet, please follow the instructions that accompany the sheet. (Depending on the material, visibility or operability may be impaired.)
- **Apply a little extra pressure** when touching if you have a commercially available protection sheet affixed or if you feel it is not responding well.
- Touch panel will not operate properly when the hand holding this unit is pressing on the touch panel.
- Do not press using anything with a sharp tip or anything hard, except for the supplied stylus pen.
- Do not operate with your fingernails.
- Wipe the LCD monitor with dry soft cloth when it gets dirty with finger prints and others.
- Do not scratch or press the LCD monitor too hard.
- For information about the icons displayed on the touch panel, refer to “Screen Display” on P116.

■ **About the Stylus pen**

It is easier to use the stylus pen (supplied) for detailed operation or if it is hard to operate with your fingers.

- Do not place it where small children can reach.
- Do not place the stylus pen on the LCD monitor when storing.
  LCD monitor may break when the stylus pen is pressed strongly against the LCD monitor.

Charging the Battery

■ **About batteries that you can use with this unit**

Supplied battery or dedicated optional batteries can be used with this camera.

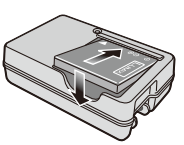
It has been found that counterfeit battery packs which look very similar to the genuine product are made available to purchase in some markets. Some of these battery packs are not adequately protected with internal protection to meet the requirements of appropriate safety standards. There is a possibility that these battery packs may lead to fire or explosion. Please be advised that we are not liable for any accident or failure occurring as a result of use of a counterfeit battery pack. To ensure that safe products are used we would recommend that a genuine Panasonic battery pack is used.

- **Use the dedicated charger and battery.**

■ **Charging**

- **The battery is not charged when the camera is shipped. Charge the battery before use.**
- Charge the battery with the charger indoors.
- **It is recommended to charge the battery in a temperature between 10 °C to 30 °C (50 °F to 86 °F). (The battery temperature should also be the same.)**

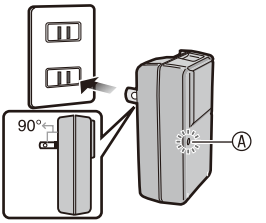
1 **Attach the battery making sure the battery direction is correct.**



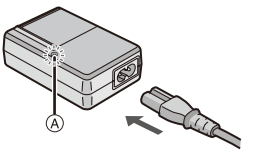
2 **Connect the charger to the electrical outlet.**

- Charging starts when the [CHARGE] indicator Ⓐ lights green.

Plug-in type



Inlet type



■ **[CHARGE] indicator**

Lights on: Charging

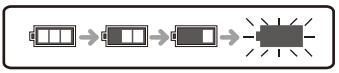
Lights off: Charging complete (Disconnect the charger from the electrical socket and detach the battery after charging is completed.)

- **When the [CHARGE] indicator flashes**
  - The battery temperature is too high or too low. It is recommended to charge the battery again in an ambient temperature of between 10 °C to 30 °C (50 °F to 86 °F).
  - The terminals of the charger or the battery are dirty. Wipe them with a dry cloth.

■ **Charging time**

	Supplied battery	Optional battery
Charging time (When charging the exhausted battery)	**Approx. 115 min**	**Approx. 120 min**

■ **Battery indication**



The battery indication is displayed on the LCD monitor. (Only when using the battery)
• If the indication blinks, charge or replace the battery.

Note
• The battery charging time may become longer in high or low temperature or for the battery which has not been used for a long period of time.
• The battery becomes warm while charging or immediately after charging is complete.
• The battery can be recharged even when it still has some charge left, but it is not recommended that the battery charge be frequently topped up while the battery is fully charged. (Since characteristic swelling may occur.)
• The battery runs out if not used for a long period of time.
• If usable time becomes extremely short, the battery life has expired. Buy a new battery.
• **Do not leave any metal items (such as clips) near the contact areas of the power plug. Otherwise, a fire and/or electric shocks may be caused by short-circuiting or the resulting heat generated.**

Approximate operating time and number of recordable pictures

■ **Recording still pictures** (By CIPA standard in Normal Picture Mode)

	DMC-FP7		DMC-FP5	
	Supplied battery	Optional battery	Supplied battery	Optional battery
Capacity	660 mAh	680 mAh	660 mAh	680 mAh
Number of recordable pictures	Approx. 240 pictures	Approx. 245 pictures	Approx. 260 pictures	Approx. 265 pictures
Recording time	Approx. 120 min	Approx. 122 min	Approx. 130 min	Approx. 132 min

Recording conditions by CIPA standard∗

∗ CIPA is an abbreviation of [Camera & Imaging Products Association].

- Temperature: 23 °C (73.4 °F) / Humidity: 50%RH when LCD monitor is on.
- Using a Panasonic SD Memory Card (32 MB).
- Using the supplied battery.
- Starting recording 30 seconds after the camera is turned on. (When the Optical Image Stabilizer function is set to [ON].)
- **Recording once every 30 seconds** with full flash every second recording.
- Moving the zoom lever from Tele to Wide or vice versa in every recording.
- Turning the camera off every 10 recordings and leaving it until the temperature of the battery decreases.

The number of recordable pictures varies depending on the recording interval time. If the recording interval time becomes longer, the number of recordable pictures decreases. [For example, if you were to take one picture every two minutes, then the number of pictures would be reduced to approximately one-quarter of the number of pictures given above (based upon one picture taken every 30 seconds).]

■ **Playback**

	Supplied battery	Optional battery
Playback time	Approx. 200 min	Approx. 205 min

Note

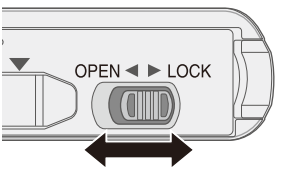
- In the following cases, the operating times shorten and the number of recordable pictures is reduced.
  – you are in low temperature areas such as on ski slopes
  – [LCD Mode] is used
  – the flash or the zoom operation is frequently used.

Inserting and Removing the Card (optional) / the Battery

- Check that this unit is turned off.
- We recommend using a Panasonic card.

1 **Slide the release lever in the direction of the [OPEN] and open the card / battery door.**

- **Always use genuine Panasonic batteries.**
- **If you use other batteries, we cannot guarantee the quality of this product.**

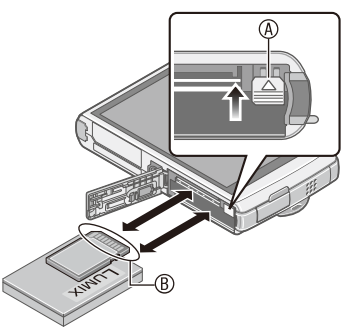


2 **Completely insert battery and card.**

Battery: Check the direction is correct and insert it securely to the end until the clicking sound is heard. Then, confirm the battery is locked by the lever Ⓐ.

Card: Check the direction is correct and insert it fully until it clicks.

Ⓑ: Do not touch the terminals!
Face this side to the LCD side.



■ To remove

Battery: Pull the lever Ⓐ in the direction of the mark (△).

Card: Push the center of the card.

3 **Close the card / battery door and slide the release lever in the direction of the [LOCK].**

Note

- Remove the battery after use.
- Before removing the card or battery, turn the camera off and wait for the “LUMIX” display on the LCD monitor to clear. (Otherwise, this unit may no longer operate normally and the card itself may be damaged or the recorded pictures may be lost.)

■ Using an AC adaptor (optional) and a DC coupler (optional) instead of the battery

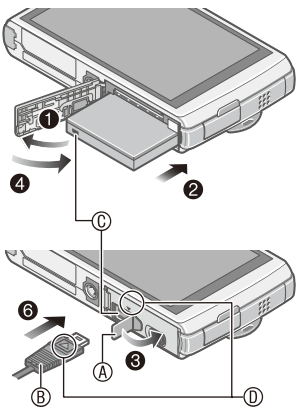
The AC Adaptor (optional) can only be used with the designated Panasonic DC coupler (optional). The AC adaptor (optional) cannot be used by itself.

❶ Open the card / battery door.
❷ Insert the DC coupler, being careful of the direction.
❸ Open the DC coupler cover Ⓐ.
- Push open the coupler cover from the interior with the card / battery door.

❹ Close the card / battery door.
- Ensure that the card / battery door is closed.

❺ Plug the AC adaptor into an electrical outlet.
❻ Connect the AC adaptor Ⓑ to the [DC IN] socket Ⓒ of the DC coupler.

Ⓓ Align the marks and insert.
- Ensure that only the AC adaptor and DC coupler for this camera are used. Using any other equipment may cause damage.



Note

- Always use a genuine Panasonic AC adaptor (optional).
- When using an AC adaptor, use the AC cable supplied with the AC adaptor.
- Make sure to unplug the AC adaptor when you open the card / battery door.
- If the AC adaptor and DC coupler are not necessary, then remove them from the digital camera. Also, please keep the DC coupler cover closed.
- Also read the operating instructions for the AC adaptor and DC coupler.

About the Built-in Memory / the Card

When the card is inserted, pictures are saved to the card. When there is no card inserted, pictures are saved to the built-in memory [ ].

Built-in Memory

- **You can copy the recorded pictures to a card. (P104)**
- **Memory size: Approx. 70 MB**
- **Recordable motion pictures: QVGA (320 × 240 pixels) only**
- The built-in memory can be used as a temporary storage device when the card being used becomes full.
- The access time for the built-in memory may be longer than the access time for a card.

Card

The following cards which conform to the SD video standard can be used with this unit. (These cards are indicated as **card** in the text.)

Type of card which can be used with this unit	Remarks
SD Memory Card (8 MB to 2 GB)	• SDHC Memory Card can be used with SDHC Memory Card or SDXC Memory Card compatible equipment. • SDXC Memory Card can only be used with SDXC Memory Card compatible equipment. • Check that the PC and other equipment are compatible when using the SDXC Memory Cards. **http://panasonic.net/avc/sdcard/information/SDXC.html**
SDHC Memory Card (4 GB to 32 GB)	
SDXC Memory Card (48 GB, 64 GB)	

- Cards other than the cards with the above capacity cannot be used.
- Use a card with SD Speed Class* with “Class 6” or higher when recording motion pictures.
  * The SD Speed Class Rating is the speed standard for successive writes.

  (Example) Class 6 

- Please confirm the latest information on the following website.
  http://panasonic.jp/support/global/cs/dsc/
  (This Site is English only.)

■ **While accessing the built-in memory or card**

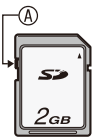
The access indication lights red.

[ ] (Built-in Memory) / [ ] (Card)

While lighting, operations such as writing/reading pictures, deleting or formatting are being performed. Do not turn the power off, or do not remove the battery, card or AC adaptor (optional).

Also, do not subject the camera to vibration, impact or static electricity. Access operation may be stopped midway. The data may be damaged or malfunction may occur.

Note

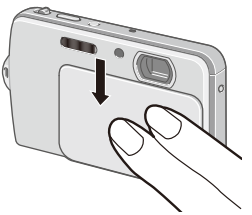


- When the Write-Protect switch Ⓐ is set to the [LOCK] position, no further data writing, deletion or formatting is possible. The ability to write, delete and format data is restored when the switch is returned to its original position.
- The data on the built-in memory or the card may be damaged or lost due to electromagnetic waves, static electricity or breakdown of the camera or the card. We recommend storing important data on a PC etc.
- Do not format the card on your PC or other equipment. Format it on the camera only to ensure proper operation. (P45)
- Keep the Memory Card out of reach of children to prevent swallowing.

Setting Date / Time (Clock Set)

• The clock is not set when the camera is shipped.

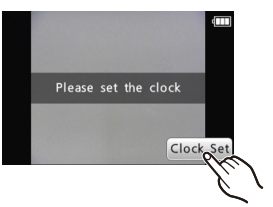
1 **Open the lens cover.**
- The camera is turned on.
- If the language select screen is not displayed, proceed to step **4**.



2 **Touch the language select icon on the screen.**

3 **Select the language.**
- The [Please set the clock] message appears.

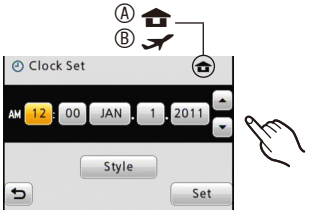
4 **Touch [Clock Set].**



5 **Touch the items you wish to set (Year / Month / Day / Hours / Minutes), and set using [▲] / [▼].**

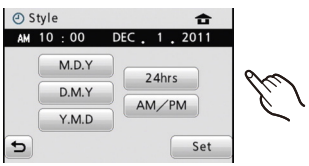
Ⓐ : Time at the home area
Ⓑ : Time at the travel destination

- You can continue to switch the settings by continuously touching [▲] / [▼].
- Touch [ ] to cancel the date and time settings without setting a date and time.



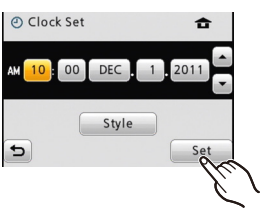
To set the display sequence and the time display format.

- Touch [Style] to display the settings screen for setting display order/time display format.
- Select either [24hrs] or [AM/PM] for the time display format.
- When [AM/PM] is selected as the time display format, midnight is displayed as AM 12:00 and noon is displayed as PM 12:00. This display format is common in the US and elsewhere.



6 **Touch [Set].**

7 **Touch [Set].**



Changing the clock setting

Select [Clock Set] in the [Rec] or [Setup] menu. **(P39)**

- It can be changed in steps **5** and **6** to set the clock.
- **The clock setting is maintained for 3 months using the built-in clock battery even without the battery. (Leave the charged battery in the unit for 24 hours to charge the built-in battery.)**

Note

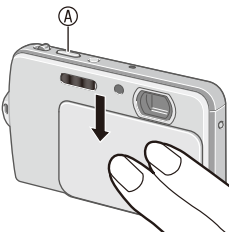
- If the clock is not set, the correct date cannot be printed when you stamp the text or date on the pictures or order a photo studio to print the pictures.
- If the clock is set, the correct date can be printed even if the date is not displayed on the screen of the camera.

Recording Sequence

1 Open the lens cover.

The camera is turned on in Recording Mode. (Recording is possible with this setting.)

Ⓐ Shutter button



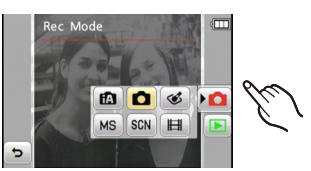
2 Select Recording Mode.

① **Touch [◀].**

② **Touch the mode icon.**

- The description is displayed after the first touch.
- When operating from Playback Mode, touch [ ] first to switch to Recording Mode, and then perform ①.





■ List of [Rec] Modes

Intelligent Auto Mode (P22)

The subjects are recorded using settings automatically selected by the camera.

Normal Picture Mode (P26)

The subjects are recorded using your own settings.

Cosmetic Mode (P59)

Takes a picture adjusting the skin texture.

SCN Scene Mode (P60) / MS My Scene Mode (P61)

This allows you to take pictures that match the scene being recorded.

Motion Picture Mode (P34)

This mode allows you to record motion pictures with audio.

3 Take the picture.

Press the shutter button halfway to focus and then press it fully to take the picture. (For details, see P22.)

4 Close the lens cover.

The camera is turned off.

- The camera can also be turned off by pressing the camera ON / OFF switch.

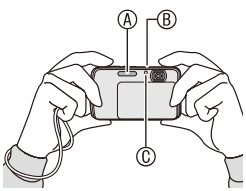
■ To view the recorded pictures

Touch [▶]. (For details, see P31.)

- Touch [📷] to return to the recording mode.

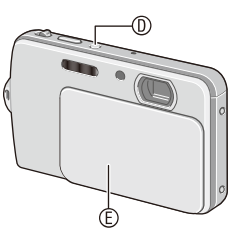
Tips for taking good pictures

- Be sure to attach the strap when using the camera to ensure that you will not drop it.
- Hold the camera gently with both hands, keep your arms still at your side and stand with your feet slightly apart.
- Be careful not to move the camera when you press the shutter button.
- Do not cover the flash Ⓐ, the AF assist lamp Ⓒ or the microphone Ⓑ with your fingers or other objects.
- Do not touch the front of the lens.



Turning the camera ON / OFF

- You can use the lens cover Ⓔ or the camera ON / OFF switch Ⓓ for turning the camera on or off.



■ When the power is off with the lens cover down.

Press and hold the camera ON / OFF switch.
The camera is turned on in Recording Mode.

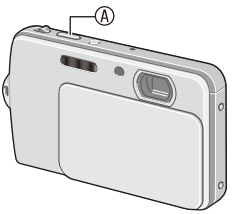
- If you press and hold the camera ON / OFF switch with the lens cover blocking the lens, [Please open the lens cover] appears. Let the lens cover down.

[Rec] Mode: iA

Taking Pictures Using the Automatic Function

(iA : Intelligent Auto Mode)

The camera will set the most appropriate settings to match the subject and the recording conditions so we recommend this mode for beginners or those who want to leave the settings to the camera and take pictures easily.



Ⓐ Shutter button

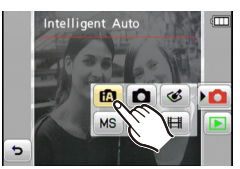
- The following functions are activated automatically:
  – Scene Detection / [Stabilizer] / [Intelligent ISO] / Face Detection / [i.Exposure] / Digital Red-Eye Correction / Backlight Compensation / [i.Resolution] / Intelligent Zoom

1 **Touch [◀ 📷] in Recording Mode.**

- When operating from Playback Mode, touch [📷] first to switch to Recording Mode, and then touch [◀ 📷].



2 **Touch [iA].**



3 **Press the shutter button halfway (push lightly) to focus.**



- The focus indication ① (green) lights when the subject is focused.
- The AF area ② is displayed around the subject's face by the Face Detection function. In other cases, it is displayed at the point on the subject which is in focus.
- The focus range is 10 cm (0.33 feet) (Wide) /50 cm (1.64 feet) (Tele) to .
- The maximum close-up distance (the shortest distance at which the subject can be taken) differs depending on the zoom magnification.

4 **Press the shutter button fully (push it in further), and take the picture.**

- You can also take pictures using the Touch Shutter function (P29).

■ **When taking pictures using the flash (P51)**

- When [ ] is selected, [ ], [ ], [ ] or [ ] is set depending on the type or brightness of the subject.
- When [ ] or [ ] is set, Digital Red-Eye Correction is activated.
- The shutter speed becomes slower during [ ] or [ ].
- When the flash is not used, select [ ].

Scene Detection

When the camera identifies the optimum scene, the icon of the scene concerned is displayed in blue for 2 seconds, after which its color changes to the usual red.

[ ] → [i-Portrait]
[i-Scenery]
[i-Macro]
[i-Night Portrait]
[i-Night Scenery]
[i-Sunset]

- Only when [ ] is selected

- [ ] is set if none of the scenes are applicable, and the standard settings are set.
- When [ ] or [ ] is selected, the camera automatically detects a person's face, and it will adjust the focus and exposure (Face Detection).
- If a tripod is used, for instance, and the camera has judged that camera shake is minimal when the Scene Mode has been identified as [ ], the shutter speed will be set to a maximum of 8 seconds. Take care not to move the camera while taking pictures.

Note

- Due to conditions such as the ones below, a different scene may be identified for the same subject.
  - Subject conditions: When the face is bright or dark, the size of the subject, the color of the subject, the distance to the subject, the contrast of the subject, when the subject is moving
  - Recording conditions: Sunset, sunrise, under low brightness conditions, when the camera is shaken, when zoom is used
- For the best results, it is recommended that you take pictures in the appropriate Recording Mode.
- **The Backlight Compensation**
  Backlight refers to when light comes from the back of a subject.
  In this case, the subject will become dark, so this function compensates the backlight by brightening the entire picture automatically.

Tracking moving subjects and focus (AF Tracking)

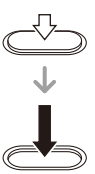
Just touching the screen can focus the targeted subject and adjust the exposure.
The camera continues to focus the subject and adjust the exposure even if it moves afterwards.

1 Touch the subject you wish to focus on the screen.

- The AF area (AF tracking frame) is displayed in yellow and the camera determines the best suited scene.
- Touch [ ] to cancel the AF Tracking.



2 Press the shutter button halfway to fix the focus and then press it fully to take the picture.



Note

- Cancel the Touch Shutter function (P29) beforehand. (Cannot be used at the same time.)
- Read the note for AF Tracking on page 81.

Settings in Intelligent Auto Mode

[Rec] Mode menu

– [Flash]* / [Selftimer] / [Picture Size]* / [Burst] / [Color Mode]*

• [Color Mode] can set the color effects of [STD.], [Happy], [B/W] or [SEPIA]. When [Happy] is selected, it is possible to automatically take a picture with a higher level of brilliance for the color brightness and vividness.

* The settings which can be selected are different from when other [Rec] Modes are used.

[Setup] menu

– [Clock Set] / [World Time] / [Beep] / [Language] / [Stabilizer Demo.]

Other items in the [Setup] menu which are not displayed can be set in the Normal Picture Mode, etc.

• The settings of the following items are fixed.

Item	Settings
[LCD Mode] (P43)	[Auto Power LCD]
[Auto Power Off] (P43)	[5 MIN.]
[Auto Review] (P44)	[2 SEC.]
[Sensitivity] (P77)	[ ] (Intelligent ISO) (The maximum ISO sensitivity: ISO1600)
[White Balance] (P78)	[AWB]
[AF Mode] (P79)	(Set to [ ] when a face cannot be detected)
[i.Exposure] (P82)	[ON]
[i.Resolution] (P82)	[i.Zoom]
[AF Assist Lamp] (P85)	[ON]
[Red-Eye Removal] (P85)	[ON]
[Stabilizer] (P86)	[ON]

• The following functions cannot be used.

– [Exposure] / [Digital Zoom]

[Rec] Mode:

Taking Pictures with Your Favorite Settings

(: Normal Picture Mode)

The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject. You can take pictures with greater freedom by changing various settings in the [Rec].

1 **Touch [ ] in Recording Mode.**

- When operating from Playback Mode, touch [ ] first to switch to Recording Mode, and then touch [ ].

2 **Touch [ ].**

3 **Aim the AF area at the point you want to focus on.**

4 **Press the shutter button halfway to focus.**

- The focus range is 50 cm (1.64 feet) to .
- If pictures are to be taken at an even closer range, refer to “Taking Close-up Pictures” (P55).
- It is possible to adjust focus or exposure using the touch AF/AE function (P30).



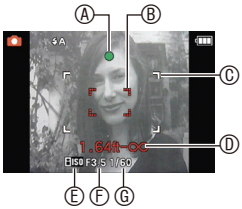


5 **Press the shutter button fully to take a picture.**

- You can also take pictures using the Touch Shutter function (P29).



Confirming the recording information such as focus and shutter speed



Focus	When the subject is focused	When the subject is not focused
Focus indication	On	Blinks
AF area	White→Green	White→Red
Sound	Beeps 2 times	Beeps 4 times

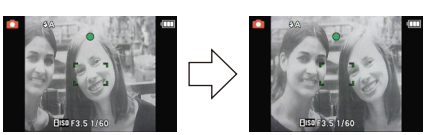
Ⓐ Focus indication
Ⓑ AF area (normal)
Ⓒ AF area (when using the Digital Zoom or when it is dark)
Ⓓ Focus range*1
Ⓔ ISO sensitivity
Ⓕ Aperture value*2
Ⓖ Shutter speed*2

*1 The recordable range (range that can be focused) is displayed during zoom operation.
*2 If correct exposure cannot be achieved, it will be displayed in red.
(However, it will not be displayed in red when the flash is used.)

When the subject is not in focus (such as when it is not in the center of the composition of the picture you want to take)

1 Aim the AF area at the subject, and then **press the shutter button halfway** to fix the focus and exposure.
2 **Press and hold the shutter button halfway** while moving the camera as you compose the picture.

- You can repeatedly retry the actions in step **1** before pressing the shutter button fully.
- Touching the screen can also adjust the focus and the exposure.
(Touch AF/AE, P30)



We recommend that you use the Face Detection function when taking pictures of people. (P80)

■ Subject and recording conditions which are difficult to focus in

- Fast-moving subjects, extremely bright subjects or subjects without contrast
- When the recordable range display has appeared in red
- When recording subjects through windows or near shiny objects
- When it is dark or when jitter occurs
- When the camera is too close to the subject or when taking a picture of both distant and near subjects

Preventing jitter (camera shake)

When the jitter alert [ ] appears, use [Stabilizer] (P86), a tripod or the self-timer (P57).

- Shutter speed will be slower particularly in the following cases. Keep the camera still from the moment the shutter button is pressed until the picture appears on the screen. We recommend using a tripod.
  - Slow sync. / Red-Eye Reduction
  - In [Panorama Assist], [Night Portrait], [Night Scenery], [Party], [Candle Light], [Starry Sky], [Fireworks] or [High Dynamic] in Scene Mode

Direction Detection Function

Pictures recorded with the camera held vertically are played back vertically (rotated). (Only when [Rotate Disp.] (P45) is set)

- The Direction Detection function may not operate correctly if recording is performed with the camera aimed up or down when holding it vertically.
- Motion pictures taken with the camera held vertically are not displayed vertically.

[Rec] Mode: iA SCN MS

Touching the Screen to Release the Shutter
(Touch Shutter function)

Touching the subject on the screen to record can automatically focus and release the shutter.

• Touch AF/AE (P30) or AF Tracking (P24) cannot be used at the same time.

1 **Touch [ ].**

[ ]: Touch Shutter recording enabled

[ ]: Touch Shutter canceled

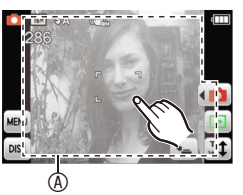


2 **Touch the subject you wish to focus on.**

Ⓐ The area that can be focused with the Touch Shutter.

• AF area you touch is displayed and a picture is automatically taken when it is focused.

• It may fail to focus in the edge of the screen, making it impossible to take a picture. The upper right area does not respond to the touching operation since your finger tends to touch the area when holding the camera.



■ To take pictures in succession

As long as [ ] is displayed, pictures are automatically taken each time you touch the screen.

■ To cancel the Touch Shutter function

Touch [ ]. ([ ] is displayed.)

Note

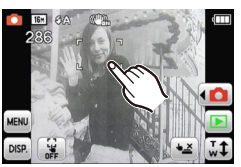
• The touch shutter setting that was made is memorized even after the camera is turned off.

[Rec] Mode: iA SCN MS

Touching the Screen to Adjust the Focus and the Exposure (Touch AF/AE)

Touching the subject to record can adjust the focus and the exposure. This is useful when the targeted subject is not in the center of the screen, etc.
When [ ] is set for [AF Mode] or the Intelligent Auto Mode is used, the AF Tracking functions at the same time and the camera continues to focus, tracking the movement of the touched subject.
• Cancel the Touch Shutter function (P29) beforehand.

1 **Touch the subject you wish to focus on.**



- The AF area is displayed at the touched position, and the focus and exposure are adjusted.
- When the AF Tracking functions, the camera follows the movement of the subject and the AF area moves.
- Touching [ ] will cancel the Touch AF/AE.

2 **Press the shutter button halfway to focus and then press it fully to take the picture.**

Note

- If you touch the edge or the upper right area of the screen, the AF area may not be set.
- In Intelligent Auto mode, the camera determines the best suited scene for the touched subject.

[Playback] Mode: ▶

Playing Back Pictures ([Normal Play])

If the card is inserted, pictures in the card are played back. If not, pictures in the built-in memory are played back.

1 **Touch [▶] in Recording Mode.**

- Touching [▶] in Recording Mode will automatically enter Normal Playback Mode.

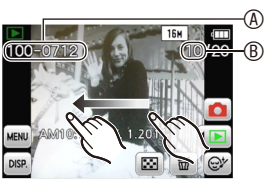


2 **Forward or rewind the image by dragging (P8) the screen horizontally.**

Forward: drag from right to left
Rewind: drag from left to right

Ⓐ File number
Ⓑ Picture number

- Speed of picture forwarding / rewinding changes depending on the playback status.
- If you continue to touch both right and left edges after advancing the picture, pictures can be advanced in succession. (Pictures are displayed in reduced size.)



Note

- This camera complies with the DCF standard “Design rule for Camera File system” established by JEITA “Japan Electronics and Information Technology Industries Association” and with Exif “Exchangeable Image File Format”. Files which do not comply with the DCF standard cannot be played back.

Displaying Multiple Screens (Multi Playback)

Touch [ ] to change to the 12 screen display.

- Each time you touch, the display method is switched.
  [ ] 1 screen, [ ] 12 screens, [ ] 30 screens, [ ] Calendar (P90)
- This can also be switched by moving the zoom lever to [ ] (W) or [ ] (T).
- The screen can be switched by dragging the slide bar Ⓐ up or down (P8).
- The screen can be switched gradually by dragging the screen up or down.
- Pictures displayed using [ ] cannot be played back.

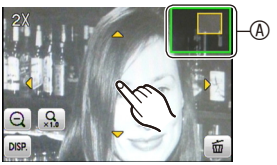


Using the Playback Zoom

1 **Touch the part to enlarge.**

1×→2×→4×→8×→16×

- Moving the zoom lever to [ ] (T) can also enlarge the picture.
- When you change the magnification, the zoom position indication Ⓐ appears for about 1 second.



- The more a picture is enlarged, the more its quality deteriorates.

2 **Move the position to be displayed by dragging the picture (P8).**

- Picture will return to the original size (1×) by touching [ ].
- Touching [ ] or moving the zoom lever to [ ] (W) can also decrease the magnification ratio.

Switching the Playback Mode

1 **Touch [◀ ▶] in Playback Mode.**

- When operating from Recording Mode, touch [▶] first to switch to Playback Mode, and then touch [◀ ▶].



2 **Touch the mode icon.**

▶ **[Normal Play] (P31)**

All the pictures are played back.

[Slide Show] (P88)

The pictures are played back in sequence.

[Filtering Play]

[Category Selection] (P91)

The pictures grouped together in categories are played back.

[Favorite] (P92)

Your favorite pictures are played back.

[Calendar] (P90)

Pictures are played back by the date recorded.

[Rec] Mode:

Recording Motion Pictures

This records motion pictures with sound. (Motion pictures cannot be recorded without audio.)

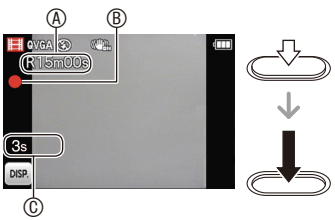
1 **Touch [◀] in Recording Mode.**

2 **Touch [ ].**

3 **Press the shutter button halfway to focus and then press it fully to start recording.**

Ⓐ Available recording time
Ⓑ Recording state
Ⓒ Elapsed recording time

- After pressing the shutter button fully, release it straight away.
- The focus and zoom are fixed to the setting when recording starts (the first frame).



4 **Press the shutter button fully to stop recording.**

Changing the settings for the recording quality

1 **Select [Rec Quality] from the recording menu in the Motion Picture Mode. (P39)**

2 **Select the item.**

Item	Picture size	fps	Aspect ratio
	1280 × 720 pixels	24 (DMC-FP7) 30 (DMC-FP5)	16:9
	640 × 480 pixels	30	4:3
	320 × 240 pixels	30	

Note

- The flash setting is fixed to [ ].
- It is recommended to use a card with SD Speed Class with “Class 6” or higher when recording motion pictures.
- The available recording time displayed on the screen may not decrease regularly.
- Depending on the type of the card, the card access indication may appear for a while after recording motion pictures. This is not a malfunction.
- When motion pictures recorded with the camera are played back on other equipment, the quality of the picture and sound may deteriorate and it may not be possible to play them back. Also the recording information may not be displayed correctly.
- This camera has improved sound quality so motion pictures recorded on this camera cannot be played back on a Panasonic Digital Camera (LUMIX models) that was sold in July 2008 or before. (However, motion pictures recorded on previous models can be played back on this camera.)
- [AF Mode] is fixed to [ ] and [Stabilizer] to [ON].
- You may not be able to record for a short while after turning the power [ON] when using a large capacity card.
- Compared to still pictures, motion pictures may have a narrow angle of view.
- We recommend you use a battery with sufficient battery power or the AC adaptor when recording motion pictures. (When using the AC adaptor, use the DC coupler (optional) as a set.)
- If while recording motion pictures using the AC adaptor (optional) and the power supply is cut off due to a power outage or if the AC adaptor (optional) is disconnected etc., the motion picture being recorded will not be recorded.

[Playback] Mode: ▶

Playing Back Motion Pictures

Select motion picture icon and touch [▶] to play back.

Ⓐ Motion picture icon
Ⓑ The motion picture recording time
• After playback starts, the elapsed playback time is displayed on the screen.
For example, 8 minutes and 30 seconds is displayed as [8m30s].



■ **Operations performed during motion picture playback**

Display control panel by touching screen.
• If there is no operation for approx. 2 seconds, the operation icon will disappear.

[▶/❚❚] Play/Pause
[■] Exit
[▶▶] Forward to next picture (While playing back)
[◀◀] Back to previous picture (While playing back)
[❚❚▶] Frame-by-frame forward (While paused)
[◀❚❚] Frame-by-frame rewind (While paused)
[+] [−] Adjust volume

• You can also adjust the volume level by using the zoom lever.
• If you touch the same icon again during Fast forward [▶▶] / Fast rewind [◀◀], the speed becomes faster (The icon is changed to [▶▶▶] / [◀◀◀].). Touch [▶/❚❚] to return to Normal Playback.

Note

• The file format of motion pictures that can be played back with this camera is QuickTime Motion JPEG.
• When using a high capacity card, it is possible that fast rewinding may be slower than usual.
• To playback the motion pictures recorded by this unit on a PC, use the “QuickTime” or the “PHOTOfunSTUDIO” software on the CD-ROM (supplied).
• If you play back motion pictures that have been recorded with other equipment, the picture quality may deteriorate or the pictures may not play back.

[Playback] Mode: ▶

Deleting Pictures

Once deleted, pictures cannot be recovered.

• Pictures on the built-in memory or the card, which are being played back will be deleted.

To delete a single picture

1 **Select the picture to be deleted, and then touch [ ].**



2 **Touch [Delete Single].**



3 **Touch [Yes].**

To delete multiple pictures (up to 50) or all the pictures

1 **Touch [🗑].**

2 **Touch [Delete Multi] or [Delete All].**
- [Delete All]: [Delete All] → step **5**.
- If you select [All Delete Except ★] after selecting [Delete All], the pictures except ones of favorite setting are deleted.

3 (When [Delete Multi] is selected.)
Touch the picture to be deleted.
(repeat this step)
- [🗑] appears on the selected pictures. Touching again cancels the setting.



4 **Touch [OK].**

5 **Touch [Yes].**

Note
- Do not turn the power off while deleting. Use a battery with sufficient battery power or the AC adaptor (optional) and DC coupler (optional).
- Depending on the number of pictures to be deleted, it may take some time to delete them.
- If pictures do not conform to the DCF standard or are protected, they will not be deleted even if [Delete All] or [All Delete Except ★] is selected.

Setting the Menu

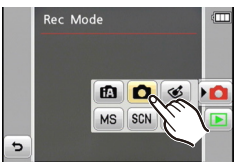
Using the menu, you can select your preferred recording or playback functions, or can make basic settings for the camera.
This section describes the operation method using the example of how to set the [AF Mode] in the recording menu to [ ] (Face Detection).

1 **Select Normal Picture Mode.**

① **Touch [◀].**

② **Touch [ ].**

- When using the playback menu, touch [▶] to switch to Playback Mode.

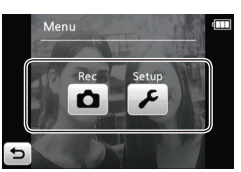


2 **Touch [MENU].**



3 **Touch the type of menu (P40).**

- In Playback Mode, the playback menu can be selected instead of the recording menu.



■ **Type of menu**

Recording menu (Only in Recording Mode)
When recording with your preferred settings (P76 to P86)
• Color shade, sensitivity, number of pixels, etc. can be set.

Playback menu (Only in Playback Mode)
When enjoying or using the recorded pictures (P95 to P104)
• You can edit or protect pictures, make print settings, etc.

Setup menu
When changing the basic settings of camera for more convenient use (P42 to P46)
• You can make settings by setting the clock, switching the operation beep sounds, etc.

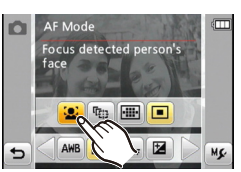
4 Touch the icon in the menu item.

• Touching the icon for a few seconds will display the explanation.
• If there are many selectable items, [◀] and [▶] are displayed at both ends. Touch and display other items.



5 Touch the setting.

• Touching the icon for a few seconds will display the explanation.
• If there are many selectable items, [◀] and [▶] are displayed at both ends. Touch and display other settings.
• Depending on the item, some settings may not be displayed or they may be displayed in a different way.



■ **To close the menu**

Touch [ ] several times, or press the shutter button halfway.

Note

• Depending on the condition in use or the selected mode, setting may not be possible or other function settings may take priority.

Calling up frequently used menus easily (Shortcut setting)

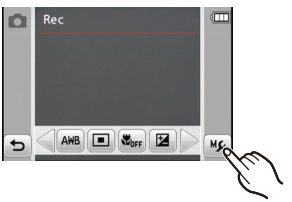
You can always display on the LCD monitor your favorite menu items among the recording menu and the playback menu.
Up to 2 items for the recording menu and 2 items for the playback menu can be registered.

■ **To register the menu item to the shortcut**

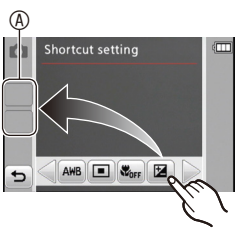
1 Display the recording or playback menu screen. (Steps 1 to 3 in page 39)

2 Touch [M].

• The description is displayed for 5 seconds. (Touch the screen to close the description.)



3 Press and hold the item to register and then drag it to the shortcut area Ⓐ position.



■ **To cancel the registration**

After the above steps **1** and **2**, press and hold the icon to cancel and then drag it to the outside shortcut area.

Note

• Depending on the Recording Mode, some items cannot be used even if they are registered.

Perform these settings if you need to.

About the Setup Menu

[Clock Set], [Auto Power Off] and [Auto Review] are important items. Check their settings before using them.

For details on how to select the [Setup] menu settings, refer to P39.

[Clock Set]	Setting Date / Time.

• Refer to P18 for details.

[World Time]	Set the time in your home area and travel destination.	
	[Destination]: Travel destination area **[Home]:** Your home area	

• Refer to P74 for details.

[Travel Date]	Set the departure date and the return date of the vacation.	
	[Travel Setup]: **[SET] / [OFF]**	**[Location]:** **[SET] / [OFF]**

• Refer to P72 for details.

[Beep]	This allows you to set the beep and shutter sound.	
	[Beep Level]: **[ ] (Low)** **[ ] (High)** **[ ] (Muted)**	**[Shutter Vol.]:** **[ ] (Low)** **[ ] (High)** **[ ] (Muted)**
	[Beep Tone]: **[❶] / [❷] / [❸]**	**[Shutter Tone]:** **[❶] / [❷] / [❸]**

[Volume]	Adjust the volume of the speaker to any of 7 levels.

• When you connect the camera to a TV, the volume of the TV speakers does not change.

[LCD Mode]	These menu settings make it easier to see the LCD monitor when you are in bright places or when you are holding the camera high above your head.
	[Auto Power LCD]: The brightness is adjusted automatically depending on how bright it is around the camera. **[Power LCD]:** The LCD monitor becomes brighter and easier to see even when taking pictures outdoors. **[High Angle]:** The LCD monitor becomes easier to see when holding the camera above your head to take pictures. **[OFF]**

- The brightness of the pictures displayed on the LCD monitor is increased so some subjects may appear differently from actuality on the LCD monitor. However, this does not affect the recorded pictures.
- The LCD Monitor automatically returns to normal brightness after 30 seconds when recording in [Power LCD] Mode. Press any button to make the LCD monitor bright again.
- In Intelligent Auto Mode, the setting is fixed to [Auto Power LCD].
- [High Angle] is canceled when power is turned off manually or by [Auto Power Off] automatically.
- The number of recordable pictures decreases in [LCD Mode].
- [Auto Power LCD] and [High Angle] cannot be selected in Playback mode.

[Focus Icon]	Change the focus icon.
	[ ] / [ ] / [ ] / [ ] / [ ] / [ ]

[Auto Power Off]	If no operation is performed for a certain period of time, the power is automatically turned off.
	[2 MIN.] / [5 MIN.] / [10 MIN.] / [OFF]

- This does not work in the following cases.
  – When using the AC adaptor
  – When connecting to a PC or a printer
  – When recording or playing back motion pictures
  – During a slide show
  – During an auto demo
- The setting is fixed in the following cases.
  – [5 MIN.] in Intelligent Auto Mode and [10 MIN.] while paused in Slide Show

[Auto Review]	Set the length of time that the picture is displayed after taking it.
	[1 SEC.] / [2 SEC.] / [HOLD] (The pictures are displayed until one of the buttons is pressed.) **/ [OFF]**

- [Auto Review] is activated regardless of its setting when using [Hi-Speed Burst], [Flash Burst] and [Photo Frame] in Scene Mode and [Burst].
- In Intelligent Auto Mode, the Auto Review function is fixed to [2 SEC.].
- [Auto Review] does not work in Motion Picture Mode.

[Reset]	The [Rec] or [Setup] menu settings are reset to the initial settings.

- When the [Reset] setting is selected during recording, the operation that resets the lens is also performed at the same time. You will hear the sound of the lens operating but this is not malfunction.
- When recording settings are reset, the following settings are also reset.
  – The setting to register for My Scene Mode
- When [Setup] menu settings are reset, the following settings are also reset.
  – The birthday and name settings for [Baby1] / [Baby2] and [Pet] in Scene Mode
  – The settings of [Travel Date] (departure date, return date, location)
  – The [World Time] setting
- The folder number and the clock setting are not changed.

[Output]	Set to match the color television system in each country. (Playback Mode only)
	[Video Out]* Set to match the output method of color television in each country. **[NTSC] / [PAL]** **[TV Aspect]** **[ ]:** When connecting to a 16:9 screen TV **[ ]:** When connecting to a 4:3 screen TV

- This will work when the AV cable is connected.

* PAL video out is not available on the version DMC-FP7P / DMC-FP5P sold in the U.S. and the version DMC-FP7PC / DMC-FP5PC sold in Canada.

[Rotate Disp.]	This mode allows you to automatically display pictures vertically if they were recorded holding the camera vertically.
	[ ] (Automatically set to portrait orientation) **[ ]** (Set to portrait orientation only when viewing on TV) **[OFF]**

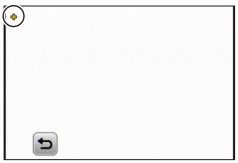
[Version Disp.]	It is possible to check which version of firmware is on the camera.

[Format]	The built-in memory or card is formatted. Formatting irretrievably deletes all the data so check the data carefully before formatting.

- Use a battery with sufficient battery power or the AC adaptor (optional) and DC coupler (optional) when formatting. Do not turn the camera off during formatting.
- If a card has been inserted, only the card is formatted. To format the built-in memory, remove the card.
- If the card has been formatted on a PC or other equipment, reformat it on the camera.
- It may take longer to format the built-in memory than the card.
- If the built-in memory or the card cannot be formatted, consult your nearest Service Center.

For USA and Puerto Rico assistance, please call: 1-800-211-PANA (7262) or, contact us via the web at:
http://www.panasonic.com/contactinfo

For Canadian assistance, please call:
1-800-99-LUMIX (1-800-995-8649) or
send e-mail to:
lumixconcierge@ca.panasonic.com

[Calibration]	Adjust the position of the touch panel if a different thing gets selected from what you touched or touch operation does not respond. **1 Touch [Start].** **2 Touch the orange [+] mark displayed on the screen in order with the stylus pen (supplied) (5 places).**  • A message is displayed once the position is set. • After setting, close the menu.

• Calibration is not done if correct position is not touched. Touch the [+] mark again.

[Language]	Set the language displayed on the screen.

• If you set a different language by mistake, select [ ] from the menu icons to set the desired language.

[Demo Mode]	The approximation amount of jitter detected by the camera is displayed (when recording only). ([Stabilizer Demo.]) The camera's features are displayed as Slide Shows. ([Auto Demo]) **[Stabilizer Demo.]** Ⓐ Amount of jitter Ⓑ Amount of jitter after correction  **[Auto Demo]:** **[ON] / [OFF]**

• The stabilizer function is switched between [On] and [Off] every time [Stabilizer] is touched during the [Stabilizer Demo.].
• [Auto Demo] has no TV output capability.

About the LCD Monitor

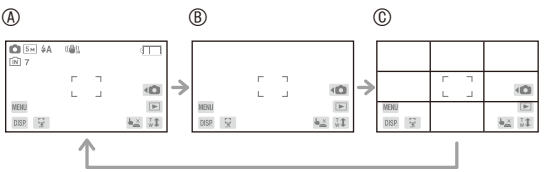
Touch [DISP.] to change.

- During Playback Zoom, while playing back motion pictures and during a slide show, you can only select “Normal display Ⓓ” or “No display Ⓕ”.



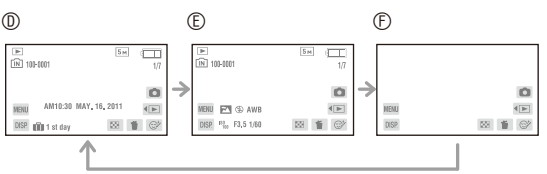
In Recording Mode

Ⓐ Normal display
Ⓑ No display*
Ⓒ No display (Recording guideline)*



In Playback mode

Ⓓ Normal display
Ⓔ Display with recording information
Ⓕ No display*



* The following icons will remain if you do not perform operations for a specific period of time.
In Recording Mode
– [ ] / [ ] / [DISP.]
In Playback Mode
– [ ] / [DISP.]

Note

- In [Photo Frame] in Scene Mode, the guideline is not displayed.

■ Recording guideline

Reference for composition (e.g. balance) when recording.

[Rec] Mode: iA SCN MS

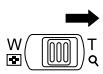
Taking Pictures with the Zoom

Using the Optical Zoom / Using the Extended Optical Zoom (EZ) / Using the Intelligent Zoom / Using the Digital Zoom

4x magnification is possible with the Optical Zoom. Reducing the recording pixel level will activate the Extended Optical Zoom which can zoom up to 9.0x for DMC-FP7 or 8.4x for DMC-FP5.
For zooming in even closer, use Intelligent Zoom or Digital Zoom.

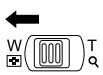
To make subjects appear closer, use (Tele)

Move the zoom lever towards Tele (T).



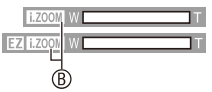
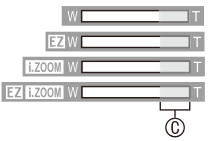
To make subjects appear further away, use (Wide)

Move the zoom lever towards Wide (W).



■ **Types of zooms**

Feature	Optical Zoom	Extended Optical Zoom (EZ)
Maximum magnification	4×	9.0×* (DMC-FP7) 8.4×* (DMC-FP5)
Picture quality	No deterioration	No deterioration
Conditions	None	The picture size with (P76) is selected.
Screen display		 Ⓐ [ ] is displayed.

Feature	Intelligent Zoom	Digital Zoom
Maximum magnification	Approx. 1.3× of Optical Zoom or Extended Optical Zoom	4× of Optical Zoom, Extended Optical Zoom or Intelligent Zoom
Picture quality	No noticeable deterioration	The higher the magnification level, the greater the deterioration.
Conditions	[i.Resolution] (P82) on the [Rec] menu is set to [i.Zoom].	[Digital Zoom] (P83) on the [Rec] menu is set to [ON].
Screen display	 Ⓑ [i.Zoom] is displayed.	 Ⓒ The Digital Zoom range is displayed.

- **When using the Zoom function, an estimate of the focus range will appear in conjunction with the zoom display bar. (Example: 0.5 m (1.64 ft) –)**

* The magnification level differs depending on the picture size and the aspect ratio setting.

■ **Extended Optical Zoom mechanism**

When you take a picture of [ ] (approx. 3 million pixels), only 3M (approx. 3 million pixels) in the center out of the CCD's whole area (effective pixels) is cropped for recording, which allows a picture with a higher zoom effect.

Note

- The indicated Zoom Magnification is an approximation.
- “EZ” is an abbreviation of “Extended Optical Zoom”.
- The Intelligent Zoom employs the super-resolution technology, which can increase the zoom ratio without noticeable deterioration of the image quality.
- When using the Digital Zoom, we recommend using a tripod and the self-timer (P57) for taking pictures.
- [i.Resolution] is fixed to [i.Zoom] in Cosmetic Mode, Intelligent Auto Mode or Scene Mode*. [i.Zoom] cannot be used in Motion Picture Mode or Macro Zoom.

* [i.Zoom] cannot be used when in [High Sens.], [Hi-Speed Burst], [Flash Burst] or [Pin Hole] in Scene Mode.

- The Extended Optical Zoom cannot be used in the following cases:
  - In Macro Zoom Mode
  - In [Transform], [High Sens.], [Hi-Speed Burst], [Flash Burst], [Pin Hole] or [Photo Frame] in Scene Mode
  - In Motion Picture Mode
- [Digital Zoom] cannot be used in the following cases:
  - In [Transform], [High Sens.], [Hi-Speed Burst], [Flash Burst], [Pin Hole], [Film Grain] or [Photo Frame] in Scene Mode
  - In Intelligent Auto Mode

Zooming with touch operation

1 **Touch [ ].**

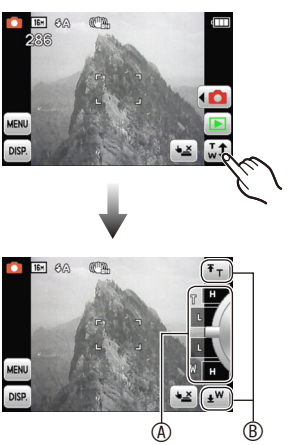
Zoom lever is displayed on the LCD monitor.

2 **Touch [ ] or [ ].**

- Zoom position will move to [W] end or [T] end. To stop halfway, touch again.
- Dragging the icon in the center can zoom adjusting the speed. ([L]: Slow, [H]: Fast)
- Zoom lever will disappear when no operation is performed for approximately 5 seconds.

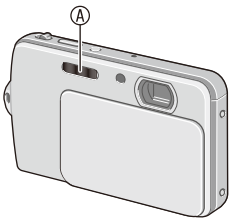
Ⓐ Zoom speed adjustment

Ⓑ Zoom to the edge



[Rec] Mode: iA SCN MS

Taking Pictures Using the Built-in Flash



Ⓐ Photo flash
Do not cover the flash with your fingers or other objects.

Switching to the appropriate flash setting

Set the flash to match the recording.

1 Select [Flash] from the recording menu. **(P39)**

2 Select the setting.

Item	Description of settings
: AUTO	The flash is automatically activated when the recording conditions make it necessary.
: AUTO / Red-Eye Reduction*	The flash is automatically activated when the recording conditions make it necessary. It is activated once before the actual recording to reduce the red-eye phenomenon (eyes of the subject appearing red in the picture) and then activated again for the actual recording. **• Use this when you take pictures of people in low lighting conditions.**
: Forced Flash ON **: Forced ON / Red-Eye Reduction***	The flash is activated every time regardless of the recording conditions. **• Use this when your subject is back-lit or under fluorescent light.**
: Slow sync. / Red-Eye Reduction*	If you take a picture with a dark background landscape, this feature will slow the shutter speed when the flash is activated so that the dark background landscape will become bright. Simultaneously it reduces the red-eye phenomenon. **• Use this when you take pictures of people in front of a dark background.**
: Forced Flash OFF	The flash is not activated in any recording conditions. **• Use this when you take pictures in places where the use of the flash is not permitted.**

* **The flash is activated twice. The subject should not move until the second flash is activated. Interval until the second flash depends on the brightness of the subject.**

■ **About the Digital Red-Eye Correction**

When [Red-Eye Removal] (P85) has been set to [ON] and Red-Eye Reduction ([ ], [ ], [ ]) is selected, Digital Red-Eye Correction is performed whenever the flash is used. The camera automatically detects red-eye and corrects the picture. (Only available when [AF Mode] is set to [ ] and Face Detection is active)

• Under certain circumstances, red-eye cannot be corrected.
• When it is set to [ON], [ ] appears on the flash icon.

■ Available flash settings by Recording Mode

The available flash settings depend on the Recording Mode.
(○: Available, —: Not available, ●: Scene Mode initial setting)

iA	○*	—	—	—	—	○
	○	○	○	—	—	○
	○	○	○	—	—	○
	○	●	○	—	—	○
	○	●	○	—	—	○
	○	●	○	—	—	○
	—	—	—	—	—	●
	—	—	—	—	—	●
	●	—	○	—	—	○
	—	—	—	—	●	○
	—	—	—	—	—	●
	○	—	○	—	—	●
	—	—	—	○	●	○
	—	—	—	○	○	●
	○	●	○	—	—	○

	○	●	○	—	—	○
	○	—	○	—	—	●
	—	—	—	—	—	●
	○	—	○	—	—	●
	—	—	—	—	—	●
	—	—	●	—	—	—
	—	—	—	—	—	●
	—	—	—	—	—	●
	—	—	●	—	—	○
	●	—	○	—	—	○
	—	—	—	—	—	●
	●	—	○	—	—	○
	●	—	○	—	—	○
	—	—	—	—	○	●
	●	○	○	—	—	○

* [ ] is displayed. [ ], [ ], [ ] or [ ] is set depending on the type of subject and brightness.

- The flash setting may change if the Recording Mode is changed. Set the flash setting again if necessary.
- The flash setting is memorized even if the camera is turned off. However, the Scene Mode flash setting is reset to the initial setting when the Scene Mode is changed.
- The flash does not work in recording motion pictures.

■ The available flash range when [ ] is set for the ISO sensitivity

- The available flash range is an approximation.

Wide	30 cm (0.99 feet) to 4.9 m (16.08 feet)
Tele	50 cm (1.64 feet) to 2.9 m (9.51 feet)

■ **Shutter speed for each flash setting**

Flash setting	Shutter speed (Sec.)
	1/60 to 1/1600

Flash setting	Shutter speed (Sec.)
	1 to 1/1600
	1 or 1/4 to 1/1600*

* The shutter speed becomes a maximum of 1 second in the following cases.
  – When the Optical Image Stabilizer is set to [OFF].
  – When the camera has determined that there is little jitter when the Optical Image Stabilizer is set.
- In Intelligent Auto Mode, shutter speed changes depending on the identified scene.
- In Scene Mode, shutter speed will be different from the above table.

Note
- If you bring the flash too close to an object, the object may be distorted or discolored by the heat or lighting from the flash.
- When you take a picture beyond the available flash range, the exposure may not be adjusted properly and the picture may become bright or dark.
- When the flash is being charged, the flash icon blinks red, and you cannot take a picture even when you press the shutter button fully.
- The white balance may not be properly adjusted if the flash level is insufficient for the subject.
- When using [Flash Burst] in Scene Mode or when the shutter speed is fast, the flash effect may not be sufficient.
- It may take time to charge the flash if you repeat taking a picture. Take a picture after the access indication disappears.
- The Red-Eye Reduction effect differs between people. Also, if the subject was far away from the camera or was not looking at the first flash, the effect may not be evident.

[Rec] Mode:

Taking Close-up Pictures

1 **Select [Macro Mode] from the recording menu. (P39)**

2 **Select the setting.**

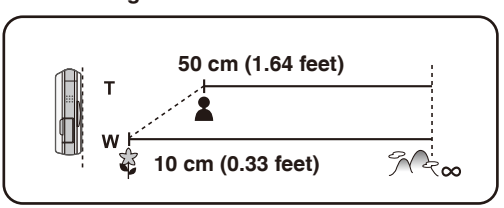
- [ ] is displayed during AF Macro Mode and [ ] is displayed during Macro Zoom Mode.
- To cancel, select [OFF].

AF Macro

This mode allows you to take close-up pictures of a subject, e.g. when taking pictures of flowers. You can take pictures of a subject as close as 10 cm (0.33 feet) from the lens by moving the zoom lever upmost to Wide (1×).

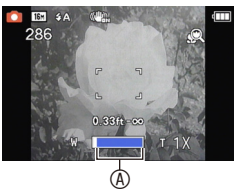
- The focus range changes in steps.

■ Focus range in AF Macro Mode



Macro Zoom

You can take a picture with the Digital Zoom up to 3× while maintaining the distance to the subject for the extreme Wide position [10 cm (0.33 feet)].



- Focus range will be 10 cm (0.33 feet) to during Macro Zoom Mode regardless of the zoom position.
- Zoom range will be displayed in blue. (Digital Zoom range Ⓐ)
- The image quality is poorer than during normal recording.
- Macro Zoom Mode cannot be used when [ ] in [AF Mode] is set.
- The following function is not activated.
  – Extended Optical Zoom
  – Intelligent Zoom

Note

- We recommend using a tripod and the self-timer.
- We recommend setting the flash to [ ] when you take pictures at close range.
- If the distance between the camera and the subject is beyond the focus range of the camera, the picture may not be properly focused even if the focus indication lights.
- When a subject is close to the camera, the effective focus range is significantly narrowed. Therefore, if the distance between the camera and the subject is changed after focusing on the subject, it may become difficult to focus on it again.
- Macro Mode gives priority to a subject close to the camera. Therefore, if the distance between the camera and the subject is far, it takes longer to focus on it.
- When you take pictures at close range, the resolution of the periphery of the picture may decrease slightly. This is not a malfunction.

[Rec] Mode: iA SCN MS

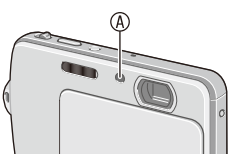
Taking Pictures with the Self-timer

1 **Select [Selftimer] from the recording menu. (P39)**

2 **Select the setting.**
- After setting, close the menu.

3 **Press the shutter button halfway to focus and then press it fully to take the picture.**
- The self-timer indicator Ⓐ blinks and the shutter is activated after 10 seconds (or 2 seconds).
- If you touch [Cancel] while the self-timer is set, the self-timer setting is canceled.





Note
- When using a tripod etc., setting the self-timer to 2 seconds is a convenient way to avoid the jitter caused by pressing the shutter button.
- When you press the shutter button once fully, the subject is automatically focused just before recording. In dark places, the self-timer indicator will blink and then may turn on brightly operating as an AF Assist Lamp to allow the camera to focus on the subject.
- We recommend using a tripod when recording with the self-timer.
- The number of pictures which can be taken in [Flash Burst] in Scene Mode is fixed to 5.
- Self-timer cannot be set to 10 seconds in [Self Portrait] in Scene Mode.
- Setting of the self-timer cannot be performed in following conditions.
  – In [Hi-Speed Burst] in Scene Mode
  – When recording motion pictures

[Rec] Mode: SCN MS

Compensating the Exposure

Use this function when you cannot achieve appropriate exposure due to the difference in brightness between the subject and the background. Look at the following examples.

Underexposed



Compensate the exposure towards positive.

Properly exposed



Overexposed

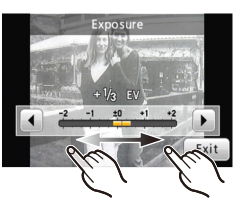


Compensate the exposure towards negative.

1 **Select [Exposure] from the recording menu.** **(P39)**

2 **Compensate the exposure by touching the slide bar.**

- Select [0 EV] to return to the original exposure.



Note

- EV is an abbreviation of [Exposure Value]. It refers to the amount of light given to the CCD by the aperture value and the shutter speed.
- The set exposure value is memorized even if the camera is turned off.
- The compensation range of the exposure will be limited depending on the brightness of the subject.
- Exposure compensation cannot be used in [Starry Sky] in Scene Mode.

[Rec] Mode:

Taking Pictures While Changing the Skin Texture

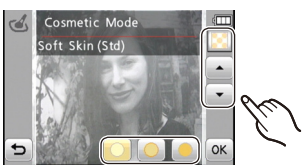
(: Cosmetic Mode)

Pictures can be taken while setting the texture or clearness of the skin.

1 **Touch [ ] in Recording Mode.**

2 **Touch [ ].**

3 **Touch the item and the degree of effectiveness.**



Item	Adjustment contents
[Soft Skin]	To take a picture with soft skin.
[Natural Skin]	To bring out the original beauty of the skin.
[Summer Look]	To create healthy tanned skin such as at the beach.

• 3 levels of clearness can be selected for each.

4 **Touch [OK].**

■ To remake the settings

Perform steps **1** to **3**.

Note

• Effect is not applied if no skin tone is detected.
• Cosmetic Mode setting set is memorized even if the camera is turned off.
• The following items cannot be set because the camera automatically adjusts them to the optimal setting.
– [Sensitivity] / [i.Exposure] / [i.Resolution] / [Color Mode]
• You can use the Touch Shutter function (P29), or Touch AF/AE (P30).

[Rec] Mode: SCN MS

Taking Pictures That Match the Scene Being Recorded

(SCN : Scene Mode)

When you select a Scene to match the subject and recording situation, the camera sets the optimal exposure and hue to obtain the desired picture.

1 **Touch [◀ 📷] in Recording Mode.**

2 **Touch [SCN].**

3 **Touch the scene to set.**

- Touching [◀] / [▶] can switch the page of the scene list.



■ **To reselect the scene**

Perform steps **1** to **3**.

Note

- The following items cannot be set in Scene Mode because the camera automatically adjusts them to the optimal setting.
  – [Sensitivity] / [i.Exposure] / [i.Resolution] / [Color Mode]
- You can use the Touch Shutter function (P29), or Touch AF/AE (P30).

Calling up the frequently used scene quickly (MS: My Scene Mode)

Registering the frequently used scene with My Scene Mode enables you to take pictures quickly.

1 In Recording Mode, touch [◀ 📷] → Touch [MS].

2 Touch the scene.

The selected scene is registered with My Scene.

- You can take pictures using the registered scene just by selecting [My Scene Mode] next time.

■ To reselect the registered scene

In My Scene Mode, touch [MENU] → Touch [SCN].

[Portrait]

When taking pictures of people outdoors during the day, this mode allows you to improve the appearance of the persons concerned and make their skin tones look healthier.

■ Technique for Portrait Mode

To make this mode more effective:

❶ Move the zoom lever as far as possible to Tele.

❷ Move close to the subject.

[Transform]

Subject can be recorded either slim or stretched, and at the same time, skin can appear smoother.

■ Setting level of transform

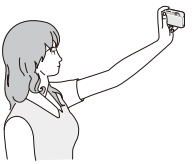
Select the level of transform.

Note

- Picture size is fixed as given below.
  – [3M] for [4:3], [2.5M] for [3:2], [2M] for [16:9] and [2.5M] for [1:1]
- Do not use the material against the public order and morals, or to offend someone.

[Self Portrait]

Select this to take pictures of yourself.



■ **Technique for Self Portrait Mode**

- Press the shutter button halfway to focus. The self-timer indicator lights up when you are brought into focus. Making sure you hold the camera still, press the shutter button fully to take the picture.
- The subject is not focused when the self-timer indicator is blinking. Make sure to press the shutter button halfway again to focus.
- If the picture is blurry due to the slow shutter speed, we recommend using the 2 second self-timer.

[Scenery]

This allows you to take pictures of a wide landscape.

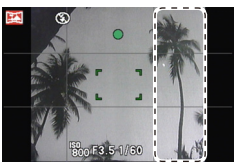
[Panorama Assist]

You can take pictures with connections suitable for creating panorama images.

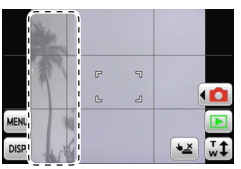
■ **Setting the recording direction**

1 Select the direction to take picture.
- The horizontal / vertical guideline will be displayed.

2 Take the picture.
- You can retake the picture by selecting [Retake].



3 Touch [Next].
- Part of the recorded image is displayed as a transparent image.



4 Take picture after moving the camera horizontally or vertically so the transparent image overlaps.
- When taking the third and later pictures, repeat steps **3** and **4**.
- You can retake the picture by selecting [Retake].

5 Touch [Exit].

Note
- The Focus, Zoom, Exposure, White Balance, Shutter speed and ISO sensitivity are fixed to the settings for the first picture.
- We recommend using a tripod. When it is dark, we recommend using the self-timer for taking pictures.
- The Shutter speed becomes a maximum of 8 seconds.
- The Shutter may remain closed (max. about 8 sec.) after taking the picture because of signal processing. This is not a malfunction.
- The recorded images can be combined into panorama pictures using the software “PHOTOfunSTUDIO” on the CD-ROM (supplied).

[Sports]

This mode allows you to take pictures of sports scenes or other fast-moving events.

Note

- The shutter speed becomes a maximum of 1 second.
- This mode is suitable for taking pictures of subjects at distances of 5 m (16.4 feet) or more.
- [ ] is activated, and maximum ISO sensitivity level becomes [ISO1600].

[Night Portrait]

This allows you to take pictures of a person and the background with near real-life brightness.

■ **Technique for Night Portrait Mode**

- **Use the flash. (You can set to [ ].)**
- Ask the subject not to move while taking a picture.

Note

- We recommend using a tripod and the self-timer for taking pictures.
- The shutter speed becomes a maximum of 8 seconds.
- The shutter may remain closed (max. about 8 sec.) after taking the picture because of signal processing. This is not a malfunction.
- Noise may become visible when you take pictures in dark places.

[Night Scenery]

This allows you to take vivid pictures of the nightscape.

Note

- We recommend using a tripod and the self-timer for taking pictures.
- The shutter speed becomes a maximum of 8 seconds.
- The shutter may remain closed (max. about 8 sec.) after taking the picture because of signal processing. This is not a malfunction.
- Noise may become visible when you take pictures in dark places.

[Food]

This mode allows you to take pictures of food with a natural hue without being affected by the ambient light in restaurants etc.

[Party]

Select this mode when you want to take pictures at a wedding reception, an indoor party etc. This allows you to take pictures of people and the background with near real-life brightness.

■ **Technique for Party Mode**

- **Use the flash. (You can set to [ ] or [ ].)**
- We recommend using a tripod and the self-timer for taking pictures.
- We recommend moving the zoom lever to Wide (1×) and being about 1.5 m (4.92 feet) from the subject when taking pictures.

[Candle Light]

This mode allows you to take pictures with a candle-lit atmosphere.

■ **Technique for Candle Light Mode**

- This is more effective when taking pictures without using the flash.

Note

- We recommend using a tripod and the self-timer for taking pictures.
- The shutter speed becomes a maximum of 1 second.

[Baby1] / [Baby2]

This takes pictures of a baby with a healthy complexion. When you use the flash, the light from it is weaker than usual.
It is possible to set different birthdays and names for [Baby1] and [Baby2]. You can select to have these appear at the time of playback, or have them stamped on the recorded image using [Text Stamp] (P96).

■ Birthday / Name setting

1 Select [SET] of [Age] or [Name].

2 Enter the birthday or name.

Birthday: Touch [▲] / [▼] for each item to set year / month / day, and touch [Set].
Name: For details on how to enter characters, refer to the “Entering Text” on P87.

- When the birthday or name is set, [Age] or [Name] is automatically set to [ON].
- If [ON] is selected when the birthday or name has not been registered, the setting screen appears automatically.
- After setting, close the menu.

■ To cancel [Age] and [Name]

Select the [OFF] setting in step **1**.

Note

- The age and name can be printed out using the “PHOTOfunSTUDIO” bundled software on the CD-ROM (supplied).
- If [Age] or [Name] is set to [OFF] even when the birthday or name has been set, the age or name will not be displayed.
- The shutter speed becomes a maximum of 1 second.
- [ ] is activated, and maximum ISO sensitivity level becomes [ISO1600].

[Pet]

Select this mode when you want to take pictures of a pet.

For information about [Age] or [Name], refer to [Baby1] / [Baby2].

[Sunset]

Select this mode when you want to take pictures of a sunset view. This allows you to take vivid pictures of the red color of the sun.

[High Sens.]

This mode minimizes the jitter of the subjects, and enables you to take pictures of these subjects in dimly lit rooms. (Select this for high-sensitivity processing. The sensitivity automatically switches to between [ISO1600] and [ISO6400].)

■ **Setting Picture size**

3M (4:3), 2.5M (3:2), 2M (16:9) and 2.5M (1:1) is selected as the picture size.

Note

• [i.Resolution] is fixed to [ON].

[Hi-Speed Burst]

This is a convenient mode for shooting rapid movement or a decisive moment.

■ **Setting Picture size**

3M (4:3), 2.5M (3:2), 2M (16:9) and 2.5M (1:1) is selected as the picture size.

• Still pictures are taken continuously while the shutter button is pressed fully.

Maximum Burst speed	approx. 4 pictures/second
Number of recordable pictures	approx. 15 to 100

• The Burst speed changes according to the recording conditions.
• The number of Burst recording pictures are limited by the picture-taking conditions and the type and/or status of the card used.
• The number of Burst recording pictures increases immediately after formatting.

Note

• [i.Resolution] is fixed to [ON].
• The focus, zoom, exposure, White Balance, shutter speed and ISO sensitivity are fixed to the settings for the first picture.
• The ISO sensitivity is automatically adjusted. Note, however, that the ISO sensitivity is set high to achieve a high shutter speed.
• Depending on the operating conditions, it may take time to take the next picture if you repeat taking a picture.

[Flash Burst]

Still pictures are taken continuously with flash. It is convenient to take continuous still pictures in dark places.

■ Setting Picture size

3M (4:3), 2.5M (3:2), 2M (16:9) and 2.5M (1:1) is selected as the picture size.

- Still pictures are taken continuously while the shutter button is pressed fully.

Number of recordable pictures	max. 5 pictures

Note

- [i.Resolution] is fixed to [OFF].
- The Focus, Zoom, Exposure, Shutter speed, ISO sensitivity, and Flash level are fixed to the settings for the first picture.

[Starry Sky]

This allows you to take vivid pictures of a starry sky or a dark subject.

■ Setting the shutter speed

Select a shutter speed of [15 sec.], [30 sec.] or [60 sec.].

- Press the shutter button fully to display the countdown screen. Do not move the camera after this screen is displayed. When countdown finishes, [Please wait…] is displayed for the same length of time as the set shutter speed for signal processing.

■ Technique for Starry Sky Mode

- The shutter opens for 15, 30 or 60 seconds. Be sure to use a tripod. We also recommend taking pictures with the self-timer.

[Fireworks]

This mode allows you to take beautiful pictures of fireworks exploding in the night sky.

■ **Technique for Fireworks Mode**

• Since the shutter speed becomes slower, we recommend using a tripod.

Note

• This mode is most effective when the subject is 10 m (32.8 feet) or more away.
• The shutter speed becomes 1/4th of a second or 2 seconds.
• You can change the shutter speed by compensating the exposure.

[Beach]

This allows you to take even more vivid pictures of the blue color of the sea, sky etc. It also prevents underexposure of people under strong sunlight.

Note

• Do not touch the camera with wet hands.
• Problems caused by sand or seawater are not covered by the product warranty.

[Snow]

This allows you to take pictures that show the snow as white as possible at a ski resort or a snow-covered mountain.

[Aerial Photo]

This mode allows you to take pictures through an airplane window.

■ **Technique for Aerial Photo Mode**

- We recommend using this technique if it is difficult to focus when taking pictures of clouds etc. Aim the camera at something with high contrast, press the shutter button halfway to fix the focus and then aim the camera at the subject and press the shutter button fully to take the picture.

Note

- Be careful about the reflection from the window.

[Pin Hole]

Picture is taken darker and with soft focus around the subjects.

Note

- [i.Resolution] is fixed to [OFF].
- Face Detection may not operate normally in the dark areas around the edges of the screen.

[Film Grain]

Picture is taken with a grainy texture as though blasted with sand.

Note

- ISO sensitivity is fixed to [ISO1600].

[High Dynamic]

You can use this mode to easily record pictures in which bright and dark regions of the scene are expressed with suitable brightness when looking into the sun, at night, or in similar circumstances.

■ **Setting the effect**

[STD.] : Natural color effect
[ART] : Eye-catching effect which emphasizes contrast and color
[B&W] : Black and white effect

Note

- ISO sensitivity is fixed to [ISO400].
- Compensation effect may not be achieved depending on the conditions.
- When it is dark, we recommend using a tripod and the self-timer for taking pictures.
- The Shutter Speed becomes a maximum of 8 seconds.
- The shutter may remain closed (max. about 8 sec.) after taking the picture because of signal processing. This is not a malfunction.
- LCD screen noise may be more visible than during normal recording due to brightness compensation of the darker areas.

[Photo Frame]

Record the image with a frame around it.

■ **Setting the frame**

Select the frame from the 3 types.

- The number of pixels is fixed to 2M (4:3).

Note

- The color of the frame displayed on the screen and the color of the frame around the actual image may differ, but this is not a malfunction.

[Rec] Mode: iA SCN MS

Useful Functions at Travel Destinations

Recording which Day of the Vacation You Take the Picture

For details on the [Setup] menu settings, refer to P39.

If you set the departure date or the travel destination of the vacation in advance, the number of days that have passed since the departure date (which day of the vacation it is) is recorded when you take the picture. You can display the number of days that have passed when playing back the pictures and stamp it on the recorded pictures with [Text Stamp] (P96).

- The number of days that have passed since the departure date can be printed out using the “PHOTOfunSTUDIO” bundled software on the CD-ROM (supplied).
- **Select [Clock Set] to set the current date and time in advance. (P18)**

1 **Select [Travel Date] from the [Setup] menu.**

2 **Touch [Travel Setup].**

3 **Touch [SET].**

4 **Touch [▲] / [▼] for each item to set the departure date (year / month / day), and touch [Set].**



5 **Touch [▲] / [▼] for each item to set the return date (year / month / day), and touch [Set].**

- If you do not want to set the return date, touch [Set] while the date bar is displayed.



6 **Touch [Location].**

7 Touch [SET].

8 Enter the location.

- For details on how to enter characters, refer to the “Entering Text” on P87.
- After setting, close the menu.

■ Canceling the travel date

The travel date is automatically canceled if the current date is after the return date. If you want to cancel the travel date before the end of the vacation, touch [OFF] on the screen shown in step **3** or **7**. If the [Travel Setup] is set to [OFF] in step **3**, [Location] will be also set to [OFF].

Note

- The travel date is calculated using the date in the clock setting and the departure date you set. If you set [World Time] to the travel destination, the travel date is calculated using the date in the clock setting and the travel destination setting.
- The travel date setting is memorized even if the camera is turned off.
- If [Travel Date] is set to [OFF], the number of days that have passed since the departure date will not be recorded. Even if [Travel Date] is set to [SET] after taking the pictures, the day of the vacation you took them on is not displayed.
- If you set a departure date and then take a picture on a date before this departure date, [-] (minus) is displayed in orange and the day of the vacation that you took the picture is not recorded.
- If the travel date is displayed as [-] (minus) in white, there is a time difference that involves date change between the [Home] and [Destination]. (It will be recorded)
- [Location] cannot be recorded when taking motion pictures.
- [Travel Date] cannot be set in the Intelligent Auto Mode. Setting of other recording mode will be reflected.

Recording Dates / Times at Overseas Travel Destinations (World Time)

For details on the [Setup] menu settings, refer to P39.

You can display the local times at the travel destinations and record them on the pictures you take.

• Select [Clock Set] to set the current date and time in advance. (P18)

1 Select [World Time] from the [Setup] menu.

• When first using the camera after purchasing it, the [Please set the home area] message appears. Set the home area on the screen in step **3**.

2 Touch [Home].

3 Touch [◀] or [▶] to select the home area, and touch [Set].

Ⓐ Current time

Ⓑ Time difference from GMT (Greenwich Mean Time)



• If daylight saving time [ ] is used at the home area, touch [ ]. (The time advances by one hour.) Touch [ ] again to return to the original time.

4 **Touch [Destination].**

- Depending on the setting, the time at the travel destination area or the home area is displayed.

5 **Touch [◀] or [▶] to select the area that the travel destination is in, and touch [Set].**



Ⓒ Current time of the destination area

Ⓓ Time difference

- If daylight saving time [ ] is used at the travel destination, touch [ ]. (The time advances by one hour.) Touch [ ] again to return to the original time.
- After setting, close the menu.

Note

- Return the setting to [Home] when the vacation is finished by performing steps **1**, **2** and **3**.
- If [Home] is already set, change only the travel destination, and use.
- If you cannot find the travel destination in the areas displayed on the screen, set by the time difference from the home area.
- The travel destination icon [ ] appears when playing back pictures taken at the travel destination.

Using the [Rec] Mode Menu

[Flash]

Refer to P51 for details.

[Selftimer]

Refer to P57 for details.

[Picture Size]

For details on [Rec] Mode menu settings, refer to P39.
Set the number of pixels and aspect ratio of the pictures. The higher the number of pixels, the finer the detail of the pictures will appear even when they are printed onto large sheets.
Applicable modes: iA SCN MS

[4:3 16M] (DMC-FP7)	4608 × 3456
[4:3 14M] (DMC-FP5)	4320 × 3240
[4:3 10M]*	3648 × 2736
[4:3 5M]	2560 × 1920
[4:3 3M]*	2048 × 1536
[4:3 0.3M]	640 × 480
[3:2 14M] (DMC-FP7)	4608 × 3072
[3:2 12.5M] (DMC-FP5)	4320 × 2880
[16:9 12M] (DMC-FP7)	4608 × 2592
[16:9 10.5M] (DMC-FP5)	4320 × 2432
[1:1 12M] (DMC-FP7)	3456 × 3456
[1:1 10.5M] (DMC-FP5)	3232 × 3232

* This item cannot be set in the Intelligent Auto Mode.

Note

- [4:3], [16:9], etc. mean aspect ratios of pictures.
- The Extended Optical Zoom does not work when [Macro Zoom] is set or in [Transform], [High Sens.], [Hi-Speed Burst], [Flash Burst], [Pin Hole] and [Photo Frame] in Scene Mode so the picture size for [ ] is not displayed.
- Pictures may appear in mosaic depending on the subject and the recording conditions.

[Rec Quality]

Refer to P34 for details.

[Sensitivity]

For details on [Rec] Mode menu settings, refer to P39.

This allows the sensitivity to light (ISO sensitivity) to be set. Setting to a higher number enables pictures to be taken even in dark places without the resulting pictures coming out dark.

Applicable modes:

[ ] / [100] / [200] / [400] / [800] / [1600]

ISO sensitivity	100 ⇦	1600
Recording location (recommended)	When it is light (outdoors)	When it is dark
Shutter speed	Slow	Fast
Noise	Less	Increased

ISO sensitivity	Settings
maximum [ISO1600] (Intelligent)	The ISO sensitivity is adjusted according to the movement of the subject and the brightness.
100 / 200 / 400 / 800 / 1600	The ISO sensitivity is fixed to various settings.

■ About [ ] (Intelligent ISO sensitivity control)

The camera automatically sets the optimum ISO sensitivity and shutter speed to suit the movement of the subject and brightness of the scene to minimize the jitter of the subject.

- The shutter speed is not fixed when the shutter button is pressed halfway. It is continuously changing to match the movement of the subject until the shutter button is pressed fully. Confirm the actual shutter speed on the information display for the picture being played back.

Note

- Refer to P53 for the available flash range when [ ] is set for the ISO sensitivity.
- The setting is fixed to [ ] in the following cases.
  – In [Sports], [Baby1] / [Baby2], [Pet] and [Flash Burst] in Scene Mode

[White Balance]

For details on [Rec] Mode menu settings, refer to P39.

In sunlight, under incandescent lights or in other such conditions where the color of white takes on a reddish or bluish tinge, this item adjusts to the color of white which is closest to what is seen by the eye in accordance with the light source.

Applicable modes: SCN MS

[**AWB**] (Automatic adjustment) / [ ] (Outdoors under a clear sky) / [ ] (Outdoors under a cloudy sky) / [ ] (Outdoors in the shade) / [ ] (Under incandescent lights) / [ ] (Value set by using [ ])

Note

- The optimal White Balance will differ depending on the type of halogen lighting being recorded under so use [AWB] or [ ].
- The White Balance setting is memorized even if the camera is turned off. (However, the White Balance setting for a Scene Mode returns to [AWB] when the Scene Mode is changed.)
- In the Scene Modes listed below, White Balance is fixed to [AWB]:
  – [Scenery] / [Night Portrait] / [Night Scenery] / [Food] / [Party] / [Candle Light] / [Sunset] / [Flash Burst] / [Starry Sky] / [Fireworks] / [Beach] / [Snow] / [Aerial Photo] / [Film Grain]

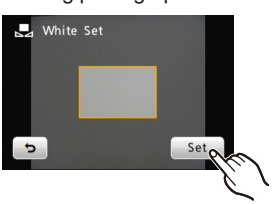
■ Setting the White Balance manually

Set the White Balance value. Use to match the condition when taking photographs.

1 Select [ ], and then select [ ].

2 Aim the camera at a sheet of white paper etc., so that the frame in the center is filled by the white object only and then touch [Set].

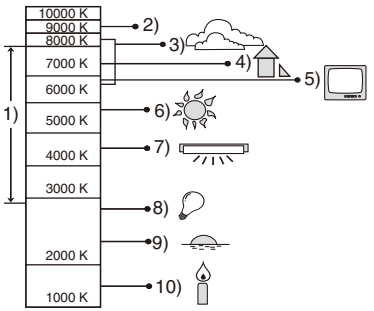
- If the subject is overly bright or overly dark, you may not be able to set the white balance. If this is the case, adjust to an appropriate brightness and then set the white balance again.



Auto White Balance

Depending on the conditions when pictures are taken, the pictures may take on a reddish or bluish tinge. Furthermore, when a multiple number of light sources are being used or there is nothing with a color close to white, Auto White Balance may not function properly. In this case, set the White Balance to a mode other than [AWB].

1 Auto white balance will work within this range.
2 Blue sky
3 Cloudy sky (Rain)
4 Shade
5 TV screen
6 Sunlight
7 White fluorescent light
8 Incandescent light bulb
9 Sunrise and sunset
10 Candlelight
K = Kelvin Color Temperature



[AF Mode]

For details on [Rec] Mode menu settings, refer to P39.

This allows the focusing method that suits the positions and number of the subjects to be selected.

Applicable modes: SCN MS

[ ]: Face Detection	The camera automatically detects the person's face. The focus and exposure can then be adjusted to fit that face no matter what portion of the picture it is in. (max. 15 areas)
[ ]: AF Tracking	Focus can be adjusted to a specified subject. Focus will keep on following the subject even if it moves. (Dynamic tracking)
[ ]: 11-area-focusing	The camera focuses on any of 11 focus areas. This is effective when the subject is not in the center of the screen.
[ ]: 1-area-focusing	The camera focuses on the subject in the AF area on the center of the screen.

Note

- The camera may detect subjects other than a person as the face. In this case, switch the AF Mode to any modes other than [ ] and then take a picture.
- It is not possible to set [ ] in the following cases.
  – In [Panorama Assist], [Night Scenery], [Food], [Starry Sky], [Fireworks] and [Aerial Photo] in Scene Mode.

■ **About [ ] (Face Detection)**



The following AF area frames are displayed when the camera detects the faces.
Yellow:
When the shutter button is pressed halfway, the frame turns green when the camera is focused.
White:
Displayed when more than one face are detected. Other faces that are the same distance away as faces within the yellow AF areas are also focused.

- Under certain picture-taking conditions including the following cases, the Face Detection function may fail to work, making it impossible to detect faces. [AF Mode] is switched to [ ].
  – When the face is not facing the camera
  – When the face is at an angle
  – When the face is extremely bright or dark
  – When the facial features are hidden behind sunglasses, etc.
  – When the face appears small on the screen
  – When there is little contrast on the faces
  – When there is rapid movement
  – When the subject is other than a human being
  – When the camera is shaking
  – When Digital Zoom is used

■ About [ ] (AF Tracking)



When the subject is touched on the screen, the subject is set as a target of AF tracking.

- The AF area (AF tracking frame) is displayed in yellow. The camera continues to focus the subject and adjust the exposure even if the subject moves afterwards.
- To reselect the subject, touch [ ] and perform operation again.

Note

- Depending on the recording condition or subject condition including the following cases, the camera may fail to recognize the subject, lose the movement of the subject or track a different subject.
  - –When the subject is too small
  - –When the subject is moving too fast
  - –When jitter is occurring
  - –When the recording location is too dark or bright
  - –When the background has the same or similar color to the subject
  - –When using the zoom
- If it cannot recognize the touched subject, the AF tracking frame will flash in red and disappear. Perform the operation again.
- When AF Tracking will not operate, the picture will be taken with [ ] in [AF Mode] in that case.
- While the Touch Shutter function (P29) is being used, AF Tracking does not function.
- It cannot be set to [ ] in the following conditions
  - –In [Panorama Assist], [Starry Sky], [Fireworks], [Pin Hole], [Film Grain] and [High Dynamic] in Scene Mode.
  - –In [B/W], [SEPIA], [COOL], or [WARM] in the color mode.
- The focus range is 10 cm (0.33 feet) (Wide) / 50 cm (1.64 feet) (Tele) to .

[Macro Mode]

Refer to P55 for details.

[Exposure]

Refer to P58 for details.

[i.Exposure]

For details on [Rec] Mode menu settings, refer to P39.
Contrast and exposure will be adjusted automatically when there is a big difference in brightness between the subject and background.

Applicable modes:

[ON] / [OFF]

Note
- Even when the [Sensitivity] is set to [ISO100], [Sensitivity] may be set higher than [ISO100] if the picture is taken with [i.Exposure] set to valid.
- Compensation effect may not be achieved depending on the conditions.

[i.Resolution]

For details on [Rec] Mode menu settings, refer to P39.
Pictures with sharp profile and resolution can be taken by utilizing the Intelligent Resolution Technology.

Applicable modes:

[ON]
[i.Zoom]*
[OFF]

* The super-resolution technology can increase 1.3x of the zoom ratio without noticeable deterioration of the image quality.

Note
- Refer to P49 for information about the Intelligent Zoom.
- [i.Resolution] is fixed to [i.Zoom] in Intelligent Auto Mode or Cosmetic Mode.

[Digital Zoom]

For details on [Rec] Mode menu settings, refer to P39.
This can enlarge subjects even more than the Optical Zoom, Extended Optical Zoom or Intelligent Zoom.
Applicable modes: SCN MS

[ON] / [OFF]

Note
- Refer to P49 for details.
- The setting is fixed to [ON] in Macro Zoom Mode.
- [Digital Zoom] cannot be set in Motion Picture Mode. Setting of other Recording Mode will be reflected.

[Burst]

For details on [Rec] Mode menu settings, refer to P39.
Pictures are taken continuously while the shutter button is pressed.
Select the ones you really like from the pictures you have taken.
Applicable modes: SCN MS

[ ] / [OFF]

Burst speed (pictures/second)	Approx. 1.7
Number of recordable pictures	Depends on the remaining capacity of the built-in memory/card.

Note

- Do not turn the camera off or remove the card after recording until the access indication lights off.
- The Burst speed becomes slower halfway. The exact timing of this depends on the type of card, the picture size and the quality.
- The focus is fixed when the first picture is taken.
- The exposure and the White Balance are adjusted each time you take a picture.
- When the self-timer is used, the number of recordable pictures in Burst Mode is fixed to 3.
- The Burst speed (pictures/second) may become slower depending on the recording environment such as in dark places, if the ISO sensitivity is high etc.
- Burst Mode is not canceled when the camera is switched off.
- If you take pictures in Burst Mode with the built-in memory, it will take time to write the picture data.
- **[ ] is set for the flash when burst is set.**
- You cannot use Burst Mode in following conditions.
  - In [Panorama Assist], [Hi-Speed Burst], [Flash Burst], [Starry Sky], [Fireworks], [Pin Hole] and [Photo Frame] in Scene Mode
  - When recording motion pictures

[Color Mode]

For details on [Rec] Mode menu settings, refer to P39.

Using these modes, the pictures can be made sharper or softer, the colors of the pictures can be turned into sepia colors or other color effects can be achieved.

Applicable modes:

[STD.] (standard) / **[Happy]***(brightness and vividness) / **[NAT]** (soft) / **[VIVID]** (sharp) / **[B/W]** (black and white) / **[SEPIA]** (sepia) / **[COOL]** (more blue) / **[WARM]** (more red)

* [Happy] can be set only when using Intelligent Auto Mode.

Note

- In Intelligent Auto Mode, only [STD.], [Happy], [B/W] and [SEPIA] can be set.
- If picture noise is noticeable in dark locations, set to [NAT].

[AF Assist Lamp]

For details on [Rec] Mode menu settings, refer to P39.
Illuminating the subject makes it easier for the camera to focus when recording in low light conditions that make focusing difficult.
Applicable modes: SCN MS

[ON]: When taking pictures in dark places, the AF Assist Lamp lights while the shutter button is pressed halfway. (Larger AF areas are now displayed.)
[OFF]: The AF Assist Lamp does not turn on.

Note



- The effective range of the AF Assist Lamp is 1.5 m (4.92 feet).
- When you do not want to use the AF Assist Lamp Ⓐ (e.g. when taking pictures of animals in dark places), set the [AF Assist Lamp] to [OFF]. In this case, it will become more difficult to focus on the subject.
- [AF Assist Lamp] is fixed to [OFF] in [Self Portrait], [Scenery], [Night Scenery], [Sunset], [Fireworks] and [Aerial Photo] in Scene Mode.
- It cannot be set in Motion Picture Mode. Setting of other Recording Mode will be reflected.

[Red-Eye Removal]

For details on [Rec] Mode menu settings, refer to P39.
When the flash is used with the Red-Eye Reduction ([ ], [ ], [ ]) selected, it will automatically detect and correct the red-eye in the image data.
Applicable modes: SCN MS

[ON] / [OFF]

Note

- When the Digital Red-Eye Correction is set to [ON], [ ] appears on the flash icon.
- Refer to P52 for details.

[Stabilizer]

For details on [Rec] Mode menu settings, refer to P39.
This automatically detects jitter and corrects for it.
Applicable modes: SCN MS

[ON] / [OFF]

Note
- The Stabilizer function may not be effective in the following cases.
  – When there is a lot of jitter, when the zoom magnification is high.
  – In Digital Zoom range.
  – When taking pictures while following a moving subject.
  – When the shutter speed becomes slower to take pictures indoors or in dark places. Be careful of camera jitter when you press the shutter button.
- The setting is fixed to [OFF] in [Starry Sky] in Scene Mode.
- The setting is fixed to [ON] in Intelligent Auto Mode, recording motion pictures or [Self Portrait] in Scene Mode.

[Date Stamp]

For details on [Rec] Mode menu settings, refer to P39.
This stamps the recording date on the picture when recording.
Applicable modes: SCN MS

[DATE] (Recording date) **/ [TIME]** (Recording date and recording time) **/ [OFF]**

Note
- The recording date is automatically stamped on the picture. You do not need to specify date print when printing at a shop or with your printer. (Dates will be overlapped and printed.)
- Dates are not stamped on the pictures taken with [Panorama Assist], [Hi-Speed Burst] or [Flash Burst] in Scene Mode, or [Burst].
- The recording date, etc. can be stamped afterwards. (P96)
- It cannot be set in Intelligent Auto Mode. Setting of other Recording Mode will be reflected.

[Clock Set]

For details on [Rec] Mode menu settings, refer to P39.
It functions in exactly the same way as [Clock Set] (P18) in the [Setup] menu.

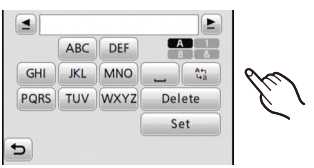
Entering Text

It is possible to enter babies' and pets' names and the names of travel destinations when recording. (Only alphabetical characters and symbols can be entered.)
You can use the stylus pen (supplied) if it is hard to operate with your fingers.

1 Display the entry screen.

- You can display the entry screen via the following operations.
  – [Name] of [Baby1] / [Baby2] or [Pet] in Scene Mode. (P66)
  – [Location] in [Travel Date] (P72)

2 Enter characters.



- To enter the letter "E", for example, touch [DEF] twice.
- Touch [ ] to switch text between [A] (capitals), [a] (small case), [1] (numbers) and [&] (special characters).
- The cursor at the entry position can be moved to the left by touching [ ], and to the right by touching [ ].
- To enter the same character again, touch [ ] to move the cursor.
- To enter a blank, touch [ ], or to delete an entered character, touch [Delete].
- To stop editing at any time during text entry, touch [ ].
- A maximum of 30 characters can be entered.

3 Touch [Set] to finish.

Note

- Text can be scrolled if all of the registered text does not fit on the screen.

[Playback] Mode: ▶

Playing Back Pictures in Sequence (Slide Show)

You can play back the pictures you have taken in synchronization with music, and you can do this in sequence while leaving a fixed interval between each of the pictures.
Furthermore, you can play back the pictures grouped together by category or play back only those pictures you have set as favorites as a Slide Show.
This playback method is recommended when you have connected the camera to a TV to view the pictures.

1 Touch [◀ ▶] in Playback Mode.

2 Touch [ ].

3 Touch the item.

- In [Category Selection], touch the category you wish to play back.
  For details on categories, refer to P91.



4 Touch [Start].



■ **To finish**
Touch [■].
Normal Playback returns.

■ Operations performed during slide show

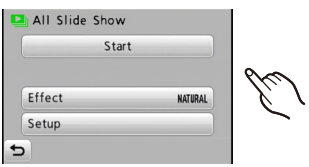
Display control panel by touching screen.

• If there is no operation for approx. 2 seconds, the operation icon will disappear.

[▶/❚❚]: Play/Pause
[■]: Exit
[▶▶|]: Forward to next picture (While paused)
[|◀◀]: Back to previous picture (While paused)
[ ]: The setting screen returns.
[+] [−]: Adjust volume

• You can also adjust the volume level by using the zoom lever.

■ Changing the Slide Show settings



You can change the settings for Slide Show Playback by selecting [Effect] or [Setup] on the Slide Show menu screen.

[Effect]

This allows you to select the screen effects or music effects when switching from one picture to the next.
[Natural], [Slow], [Swing], [Urban], [Off], [Auto]

• When [Urban] has been selected, the picture may appear in black and white as a screen effect.
• [Auto] can be used only when [Category Selection] has been selected. The pictures are played back with the recommended effects in each category.
• Some [Effect] will not operate when playing back pictures displayed vertically.

[Setup]

[Duration] or [Repeat] can be set.

Item	Settings
[Duration]	1 SEC. / 2 SEC. / 3 SEC. / 5 SEC.
[Repeat]	ON / OFF
[Music]	ON / OFF

• [Duration] can be set only when [OFF] has been selected as the [Effect] setting.

Note

• It is not possible to add new music.
• Motion pictures cannot be played back as a slide show. When [Motion Picture] in the category is selected, the first image of each motion picture is shown in the slide show.

[Playback] Mode: ▶

Selecting Pictures and Playing them Back

[Calendar]

You can display pictures by recording date.

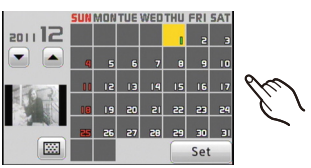
1 Touch [◀ ▶] in Playback Mode.

2 Touch [ ].

- You can also move the zoom lever to [ ] (W) several times to display the calendar search display screen.

3 Touch [▲] / [▼] to select the month to be played back.

- If there were no pictures recorded during a month, the month is not displayed.
- The multi playback screen will appear by touching [ ]. (P32)



4 Touch the date to be played back and touch [Set].

5 Touch the picture to select.

- Switch the screen by touching [▲] / [▼] if these are displayed on the slide bar.
- The calendar screen will be retrieved by touching [ ].



Note

- The recording date of the picture selected in the playback screen becomes the date selected when the calendar screen is first displayed.
- If there are multiple pictures with the same recording date, the first picture recorded on that day is displayed.
- You can display the calendar between January 2000 and December 2099.
- If the date is not set in the camera, the recording date is set as January 1st, 2011.
- If you take pictures after setting the travel destination in [World Time], the pictures are displayed by the dates at the travel destination in Calendar Mode.

[Category Selection]

This mode allows you to search images by Scene Mode or other categories (such as [Portrait], [Scenery] or [Night Scenery]) and sort the pictures into each of the categories. You can then play back the pictures in each category.

1 **Touch [◀ ▶] in Playback Mode.**

2 **Touch [ ] and touch [ ].**

3 **Touch the category to playback.**

- If there are no pictures in the selected category, a message is displayed and playback will become impossible.
- Pictures are sorted into the categories as follows.



Category	Recording information e.g. Scene Modes
	[Portrait], [i-Portrait], [Transform], [Self Portrait], [Night Portrait], [i-Night Portrait], [Baby1] / [Baby2], [Cosmetic Mode]
	[Scenery], [i-Scenery], [Sunset], [i-Sunset], [Aerial Photo]
	[Night Portrait], [i-Night Portrait], [Night Scenery], [i-Night Scenery], [Starry Sky]

Category	Recording information e.g. Scene Modes
	[Sports], [Party], [Candle Light], [Fireworks], [Beach], [Snow], [Aerial Photo]
	[Baby1] / [Baby2]
	[Pet]
	[Food]
	[Travel Date]
	[Motion Picture]

Note

- The available playback menu will vary according to the selected category.

[Favorite]

You can play back the pictures you have set as [Favorite] (P100) (Only when there are pictures which have been set to [Favorite]).



Touch [◀ ▶] in Playback Mode.



Touch [ ] and touch [ ].

[Playback] Mode: ▶

Refining Portraits (Beauty Retouch)

(Only for DMC-FP7)
By adding make-up effects, adjusting texture of skin, etc., you can transform the faces of subjects even after taking pictures so they look more attractive. Make sure there is some space available on the built-in memory or card before transformed pictures are newly created.

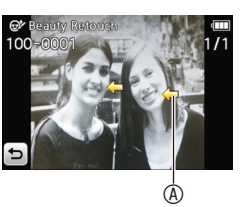
1 **Touch [ ] in Playback Mode.**



2 **Drag the screen to select the picture before transformation, and then touch [OK].**
- Select a picture taken head-on with as little tilt as possible.
- For selecting pictures, see P31.

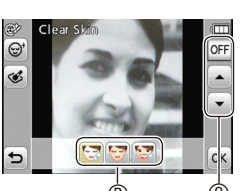


3 **Touch the face of a person to transform.**
- The camera automatically recognizes faces. Mark Ⓐ is displayed for the editable faces.



4 **Touch [ ] (beauty) or [ ] (makeup).**

5 **Touch the item Ⓑ and the degree of effectiveness Ⓒ.**
- The transformed picture is previewed.
- You can add effects by repeating steps **4** and **5**.
- To cancel the effect, select the item and set the effect to [OFF].



6 **Touch [OK].**
- Pre-transformed and post-transformed pictures are displayed side by side.

7 **Touch [OK].**
- Returns to the screen on step **3**.
- If you want to transform other subjects in succession, touch other faces and perform from step **3**.

8 **Touch [Save].**

9 **Touch [Yes].**

Note
- If the camera cannot detect a person's face, a message is displayed after step **3**. Select other subjects or other pictures.
- Beauty Retouch cannot be used for motion pictures.
- Do not use the material against the object's interest or for the purpose of mental abuse.
- When the camera fail to detect the face of the picture, it may be impossible to retouch the picture you intended.
- What is the picture to suite for the Beauty Retouch
  – The face is looking front.
  – Avoiding the place where is extremely dark.
  – Not being hidden facial outline or eyes and eyebrows behind hair,etc.

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[Playback] Mode: ▶

Using the [Playback] Mode Menu

You can use various playback functions such as setting of pictures to upload to the image sharing sites, resizing recorded pictures, setting protection, etc.

- Using [Text Stamp], [Resize] or [Cropping], a newly edited picture is created. A new picture cannot be created if there is no free space on the built-in memory or the card so we recommend checking that there is free space and then editing the picture.

[Upload Set]

On this camera, you can make the setting of pictures to upload to the image sharing sites on the Internet.

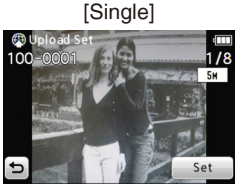
- You can upload pictures or motion pictures to the following sites.
  – Facebook (picture), YouTube (motion picture)
- This cannot be set for pictures in the built-in memory. Copy (P104) pictures to the card beforehand.
- When [Upload Set] is set, the upload tool incorporated in this camera is written to the card.

1 Select [Upload Set] on the [Playback] Mode menu. (P39)

2 Touch [S (Single)] or [M (Multi)].

3 Select the picture.

[Single]



[Single] setting

Drag the screen horizontally to select an image, and then touch [Set].

- Setting is canceled by touching [Cancel].

[Multi]



[Multi] setting

1 Touch the picture you wish to upload.

- Setting is canceled by touching the same picture again.

2 Touch [OK].

3 Touch [Yes].

- After setting, close the menu.

■ Uploading pictures to the image sharing sites

Connect the camera to the computer and perform the operation to upload. For details, see P110.

■ **Canceling all the [Upload Set] settings**

Select [Upload Set] → [CANCEL] → [Yes] on the playback menu.

Note

- A card with the capacity of less than 512 MB cannot be set.
- You may not be able to set pictures taken with other equipment.
- A picture with the picture size of 10 MB or more cannot be set. Select another picture or perform [Resize] (P98).

[Text Stamp]

You can stamp the recording date / time, name, location or Travel Date onto the recorded pictures.

1 **Select [Text Stamp] on the [Playback] Mode menu. (P39)**

2 **Touch [S (Single)] or [M (Multi)].**

3 **Select the picture(s) to be stamped.**

[ ] is shown on the picture if it has been stamped with text before.

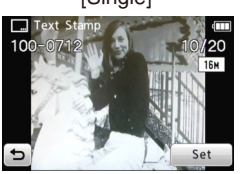
[Single] setting

1 Drag the screen horizontally to select an image.

2 Touch [Set].

- For how to select a picture, see P31.

[Single]



[Multi] setting

1 Touch the image to select the picture.

- Repeat touching to select other pictures.
- For how to select a picture, see P31.
- Selection will be canceled by touching the same picture again.

2 Touch [OK].

[Multi]



4 **Touch [Set].**

5 Select the items to stamp.

Item	Setting item	
[Shooting Date]	[DATE]: [TIME]: [OFF]	Stamp the year, month and date. Stamp the year, month, day, hour and minutes.
[Name]	[/]: [OFF]	Stamps names registered in name settings for [Baby1] / [Baby2] or [Pet] in Scene Mode.
[Location]	[ON]: [OFF]	Stamps the travel destination name set under [Location].
[Travel Date]	[ON]: [OFF]	Stamps the travel date set under [Travel Date].

6 Touch [ ].

7 Touch [OK].

- To stamp [Age] when [/] is selected, touch [Yes] and proceed to step **8**.

8 Touch [Yes].

- After saving, close the menu.

Note

- If the picture already has Text Stamp on it and you specify the date print at a photo shop or on the printer, the characters, etc. will be overlapped when printed.
- Up to 50 pictures can be selected at once in [Multi] setting.
- Stamping texts may degrade image quality.
- Depending on the printer being used, some characters may be cut at printing. Check before printing.
- Texts stamped on a small-size picture are difficult to read.
- Text cannot be stamped on the pictures in the following cases.
  - Motion pictures
  - Pictures recorded without setting the clock
  - Pictures with recording texts stamped
  - Pictures with recording dates stamped
  - Pictures recorded with other equipment

[Resize] Reducing the picture size (number of pixels)

You can reduce the size of the recorded picture(s) to attach them to an e-mail or use them on a website.

1 Select [Resize] on the [Playback] Mode menu. (P39)

2 Touch [S (Single)] or [M (Multi)].

3 Select the picture(s) and the size(s).

[Single] setting

1 Drag the screen horizontally to select an image, and then touch [Set].
- For how to select a picture, see P31.

2 Touch the picture size.

[Single]



[Multi] setting

1 Touch the picture size.

2 Touch the image to select the picture.
- Repeat touching to select other pictures.
- For how to select a picture, see P31.
- Selection will be canceled by touching the same picture again.

3 Touch [OK].

[Multi]



4 Touch [Yes].
- After saving, close the menu.

Note
- Up to 50 pictures can be selected at once in [Multi] setting.
- The picture quality of the resized picture will deteriorate.
- It may not be possible to resize pictures recorded with other equipment.
- Motion pictures and pictures stamped with characters or date cannot be resized.

[Cropping]

You can enlarge and then crop the important part of the recorded picture.

1 **Select [Cropping] on the [Playback] Mode menu. (P39)**

2 **Drag the screen horizontally to select an image, and then touch [Set].**
- For how to select a picture, see P31.

3 **Select the part to be cropped.**
Touch [ ]: Enlarge
Touch [ ]: Reduce
Touch [▲] / [▼] / [◀] / [▶]: Move
- The zoom lever can also be used.

4 **Touch [Set].**

5 **Touch [Yes].**
- After saving, close the menu.

Note
- The picture quality of the cropped picture will deteriorate.
- It may not be possible to crop pictures recorded with other equipment.
- Motion pictures and pictures with characters or date stamped cannot be cropped.

[Favorite]

You can play back or print only pictures set as favorites. Also, you can delete pictures other than favorites.

1 Select [Favorite] on the [Playback] Mode menu. (P39)

2 Touch [S (Single)] or [M (Multi)].

3 Select the picture.

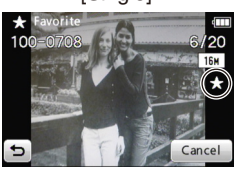
- [ ] is displayed on pictures that are already registered as favorites.
- For how to select a picture, see P31.

[Single] setting

Drag the screen horizontally to select an image, and then touch [Set].

- Repeat touching to select other pictures.
- Setting is canceled by touching [Cancel].
- After setting, close the menu.

[Single]



[Multi] setting

Touch the pictures you wish to set as favorites.

- Repeat touching to select other pictures.
- Selection will be canceled by touching the same picture again.
- After setting, close the menu.

[Multi]



■ Canceling all the [Favorite] settings

Select [Favorite] → [CANCEL] → [Yes] on the playback menu.

Note

- You can set up to 999 pictures as favorites.
- You may not be able to set pictures taken with other equipment as favorites.

[Print Set]

DPOF “Digital Print Order Format” is a system that allows the user to select which pictures to print, how many copies of each picture to print and whether or not to print the recording date on the pictures when using a DPOF compatible photo printer or photo printing store.
For details, ask at your photo printing store.
When you want to use a photo printing store to print pictures recorded on the built-in memory, copy them to a card (P104) and then set the print setting.
For more information visit:
http://panasonic.jp/dc/dpof_110/white_e.htm

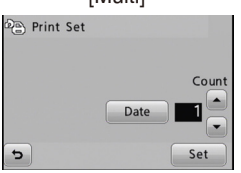
1 **Select [Print Set] on the [Playback] Mode menu. (P39)**

2 **Touch [S (Single)] or [M (Multi)].**

3 **Select the picture.**

[Single] [Multi]





[Single] setting
Drag the screen horizontally to select an image, and then touch [Set].
- For how to select a picture, see P31.

[Multi] setting
Touch the picture you wish to print.
- For how to select a picture, see P31.

4 **Touch [▲] / [▼] to set the number of prints, and touch [Set].**
- When [Multi] has been selected, repeat steps **3** and **4** for each picture. (It is not possible to use the same setting for a multiple number of pictures.)
- After setting, close the menu.

■ **Canceling all the [Print Set] settings**
Select [Print Set] → [CANCEL] → [Yes] on the playback menu.

■ **To print the date**

After setting the number of prints, set/cancel printing with the recording date by touching [Date].

- Depending on the photo printing store or the printer, the date may not be printed even if you set to print the date. For further information, ask at your photo printing store or refer to the operating instructions for the printer.
- The date cannot be printed on pictures stamped with text or date.

Note

- The number of prints can be set from 0 to 999.
- With a printer supporting PictBridge, the date print settings of the printer may take precedence.
- It may not be possible to use the print settings with other equipment. In this case, cancel all the settings, and reset the settings.
- The print setting cannot be set for motion pictures.
- If the file is not based on the DCF standard, the print setting cannot be set.

[Protect]

You can set protection for pictures you do not want to delete by mistake.

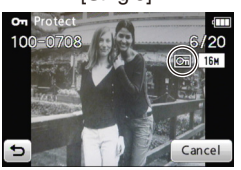
1 Select [Protect] on the [Playback] Mode menu. (P39)

2 Touch [S (Single)] or [M (Multi)].

3 Select the picture.

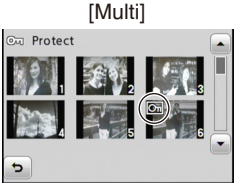
[Single] setting
Drag the screen horizontally to select an image, and then touch [Set].
- For how to select a picture, see P31.
- Setting is canceled by touching [Cancel].

[Single]



[Multi] setting
Touch the picture you wish to protect.
- For how to select a picture, see P31.
- Setting is canceled by touching the same picture again.
- After setting, close the menu.

[Multi]



■ Canceling all the [Protect] settings
Select [Protect] → [CANCEL] → [Yes] on the playback menu.

Note
- The protect setting may not be effective on other equipment.
- Even if you protect pictures in the built-in memory or a card, they will be deleted if the built-in memory or the card is formatted.
- Even if you do not protect pictures on a card, they cannot be deleted when the card's Write-Protect switch is set to [LOCK].

[Copy] Copying pictures from the built-in memory to a card

You can copy the data of the pictures you have taken from the built-in memory to a card or from a card to the built-in memory.

1 **Select [Copy] on the [Playback] Mode menu.** **(P39)**

2 **Touch the copy destination.**

: All the picture data in the built-in memory are copied onto the card at one time. → step **4**.
: One picture at a time is copied from the card to the built-in memory. → step **3**.

3 **Drag the screen horizontally to select an image, and then touch [Set].**
• For how to select a picture, see P31.

4 **Touch [Yes].**
• Do not turn the camera off at any point during the copying process.
• After copying, close the menu.

Note

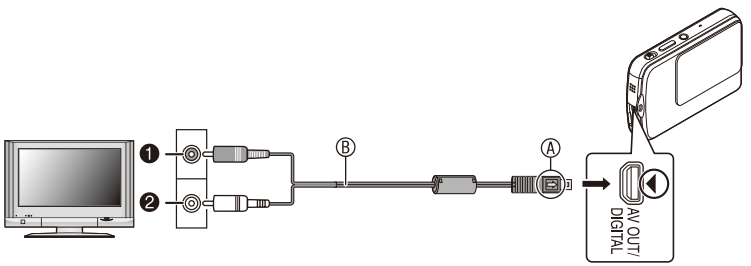
- If a picture exists with the same name (folder number / file number) as the picture to be copied in the copy destination when [ ] is selected, a new folder is created and the picture is copied.
- If a picture exists with the same name (folder number / file number) as the picture to be copied in the copy destination when [ ] is selected, that picture is not copied.
- It may take time to copy the picture data.
- Only pictures recorded with a Panasonic digital camera (LUMIX) will be copied. (Even if the pictures were recorded with a Panasonic digital camera, you may not be able to copy them if they were edited with a PC.)
- [Print Set], [Protect] or [Favorite] settings will not be copied. Perform the settings again after copying is finished.

[Playback] Mode: ▶

Playing Back Pictures on a TV Screen

Playing back pictures using the AV cable (supplied)

Preparations: Set the [Output]. (P44)
Turn this unit and the TV off.



❶ Yellow: To the video input socket
❷ White: To the audio input socket
Ⓐ Align the marks, and insert straight. (Cannot insert in the opposite direction.)
Ⓑ AV cable (supplied)
• Check the directions of the connectors, and plug them straight in or unplug them straight out. (Otherwise the connectors may be bent out of shape which may cause malfunction.)

1 Connect the camera to the TV using the AV cable.

2 Turn the TV on and select external input.

3 Turn the camera on and touch [▶].

Note

- Depending on the aspect ratio, black bands may be displayed on the top and bottom or the left and right of the pictures.
- Do not use any other AV cables except the supplied one.
- Read the operating instructions for the TV.
- When you play back a picture vertically, it may be blurry.
- You can view pictures on TVs in other countries (regions) which use the NTSC or PAL system when you set [Video Out] in the [Setup] menu. (PAL video out is not available on the version DMC-FP7P / DMC-FP5P sold in the U.S. and the version DMC-FP7PC / DMC-FP5PC sold in Canada.)
- You cannot operate if you touch the Touch icon displayed on the TV screen.
- Change the screen mode on your TV if the picture is displayed with the top or bottom cut off.

Playing back pictures on a TV with an SD Memory Card slot

Playing back recorded pictures by inserting the card into the SD card slot.

Note

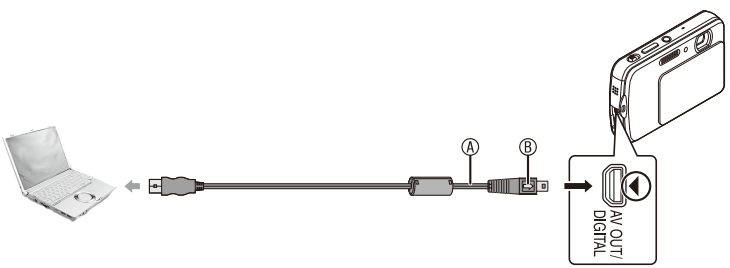
- Depending on the TV model, pictures may not be displayed on the full screen.
- To play back motion pictures, connect the camera to the TV with the AV cable.
- You cannot play back pictures on SDHC cards or SDXC cards if the TV does not support these cards.

Connecting to a PC

You can acquire recorded pictures to a PC by connecting the camera and the PC.

- Some PCs can read directly from the card removed from the camera. For details, refer to the operating instructions of the PC.
- You can easily print out or e-mail the pictures you have imported. Use of the “PHOTOfunSTUDIO” bundled software on the CD-ROM (supplied) is a convenient way of doing this.
- Read the separate operating instructions for the supplied software for more information about the software in the CD-ROM (supplied) and how to install it.

Preparations: Turn on the camera and the PC.
Remove the card before using the pictures in the built-in memory.



Ⓐ USB connection cable (supplied)

- Check the directions of the connectors, and plug them straight in or unplug them straight out. (Otherwise the connectors may be bent out of shape which will cause a malfunction.)

Ⓑ Align the marks, and insert. (Cannot insert in the opposite direction.)

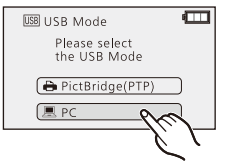
- Use a battery with sufficient battery power or the AC adaptor (optional) and DC coupler (optional). If the remaining battery power becomes low while the camera and the PC are communicating, the alarm beeps.
  Refer to “Disconnecting the USB connection cable safely” (P108) before disconnecting the USB connection cable.

1 **Connect the camera to the PC using the USB connection cable Ⓐ.**

- Do not use any other USB connection cables except the supplied one. Use of cables other than the supplied USB connection cable may cause a malfunction.

2 **Touch [PC].**

- When the camera has been connected to the PC with [USB Mode] set to [PictBridge(PTP)], a message may appear on the PC's screen. Select [Cancel] to close the screen, and disconnect the camera from the PC. Then set [USB Mode] to [PC] again.



3 **Double-click on [Removable Disk] in [My Computer].**

- When using a Macintosh, the drive is displayed on the desktop. ("LUMIX", "NO_NAME" or "Untitled" is displayed.)

4 **Double-click [DCIM] folder.**

5 **Using a drag-and-drop operation, move the pictures you want to acquire or the folder storing those pictures to any different folder on the PC.**

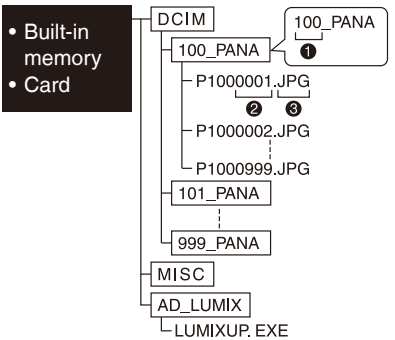
■ **Disconnecting the USB connection cable safely**

- Proceed with the hardware removal using "Safely Remove Hardware" on the task tray of the PC. If the icon is not displayed, check that [Access] is not displayed on the LCD monitor of the digital camera before removing the hardware.

Note

- Turn the camera off before connecting or disconnecting the AC adaptor (optional).
- Before inserting or removing a card, turn the camera off and disconnect the USB connection cable. Otherwise, data may be destroyed.

■ **Viewing the contents of the built-in memory or card using the PC (folder composition)**



❶ Folder number
❷ File number
❸ JPG: Pictures
MOV: Motion Pictures
MISC: DPOF print
Favorite
AD_LUMIX: For Upload Set
LUMIXUP.EXE: Upload Set tool
(LUMIX Image Uploader)

A new folder is created when pictures are taken in the following situations:
- When a card containing a folder with the same folder number has been inserted (such as when pictures were taken using another maker of camera)
- When there is a picture with file number 999 inside the folder

■ **Connection in the PTP Mode (Windows® XP, Windows Vista®, Windows® 7 and Mac OS X only)**

Set [USB Mode] to [PictBridge(PTP)].
Data can now be read only from the card into the PC.
- When there are 1000 or more pictures on a card, the pictures may not be imported in the PTP Mode.

Uploading pictures to the image sharing sites

Using the upload tool (LUMIX Image Uploader), you can upload pictures or motion pictures to the image sharing sites (Facebook, YouTube).
You do not need to import pictures to the computer or to install software. Only with the computer that can be connected to the Internet, you can upload pictures. This is convenient when immediately publicizing pictures taken while traveling.
• Set pictures to upload with [Upload Set] (P95) beforehand.

Compliant OS: Windows® XP, Windows Vista®, Windows® 7
Preparation: • Connect the camera to the computer (P107). Or remove the card from the camera and insert it to the computer.
• Create your account on the image sharing sites and confirm the user name, password and so on to log-in.

1 Double-click [LUMIXUP.EXE] to start. (P109)

- If the “PHOTOfunSTUDIO” software in the CD-ROM (supplied) has been installed, the upload tool (LUMIX Image Uploader) may start automatically.
- Read the operating instructions for LUMIX Image Uploader with using Internet Explorer.

2 Select the upload destination and enter necessary information.

- Enter the user name and password, etc. on the log-in screen for each image sharing site.
- Enter the comment, keyword, etc. as necessary and click “Set”. Then, the images set for [Upload Set] on this camera will be uploaded on the image sharing site.

Note

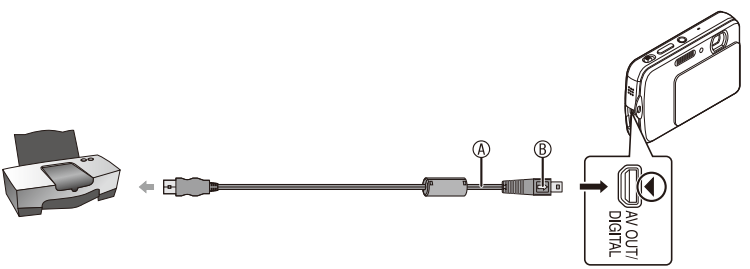
- Operations will not be guaranteed in the future when the service contents of YouTube and Facebook change or the specifications change. Usable service contents or screens may change without notice. (This service is as of December 1, 2010.)
- Do not upload images protected by copyright unless you own the copyright or have obtained the approval from a relevant authority.

Printing the Pictures

If you connect the camera to a printer supporting PictBridge, you can select the pictures to be printed out and instruct that printing be started on the camera's LCD Monitor.

- Some printers can print directly from the card removed from the camera. For details, refer to the operating instructions of the printer.

Preparations: Turn on the camera and the printer.
Remove the card before printing the pictures in the built-in memory.
Perform the print quality and other settings at the printer before printing the pictures.



Ⓐ USB connection cable (supplied)

- Check the directions of the connectors, and plug them straight in or unplug them straight out. (Otherwise the connectors may be bent out of shape which may cause malfunction.)

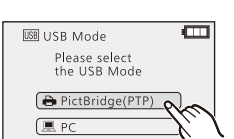
Ⓑ Align the marks, and insert. (Cannot insert in the opposite direction.)

- Use a battery with a sufficient battery power or the AC adaptor (optional) and DC coupler (optional). If the remaining battery power becomes low while the camera and the printer are connected, the alarm beeps. If this happens during printing, stop printing at once. If not printing, disconnect the USB connection cable.

1 **Connect the camera to the printer using the USB connection cable Ⓐ.**

2 **Touch [PictBridge(PTP)].**

- When the camera is connected to the printer, the cable disconnect prohibit icon [ ] appears. Do not disconnect the USB cable while [ ] is displayed.

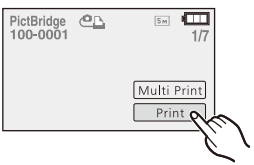


Note

- Do not use any other USB connection cables except the supplied one. Use of cables other than the supplied USB connection cable may cause malfunction.
- Turn the camera off before connecting or disconnecting the AC adaptor (optional).
- Before inserting or removing a card, turn the camera off, and disconnect the USB connection cable.
- Motion pictures recorded cannot be printed out.

3 **Drag the screen horizontally to select image, and then touch [Print].**

- For how to select a picture, see P31.



4 **Touch [Print start].**

- Refer to “Print Settings” (P113) for the items which can be set before starting to print the pictures.
- Disconnect the USB connection cable after printing.

Selecting multiple pictures and printing them

① **Touch [Multi Print] on the screen in step 3.**

② **Touch an item to select.**

Item	Description of settings
[Multi Select]	Multiple pictures are printed at one time. • Switch the screen by touching [▲] / [▼] if these are displayed on the slide bar. • Touch the pictures and [ ] appears on the pictures to be printed. (When the selected picture is touched again, the setting is canceled.) • After the pictures have been selected, touch [Set].
[Select All]	Prints all the stored pictures.
[Print Set (DPOF)]	Prints the pictures set in [Print Set] only. (P101)
[Favorite]	Prints the pictures set as favorites only. (P100)

③ **Print the picture (step 4 on the previous page).**

Print Settings

Make the setting before touching [Print start].

- When printing pictures in paper size or layout settings which are not supported by the camera, select [ ] (Priority to printer) and make the setting on the printer. (For details, refer to the operating instructions of the printer.)
- When [Print Set (DPOF)] has been selected, the [Print with Date] and [Num.of prints] items are not displayed.

[Print with Date]

Item	Description of settings
[ON]	Date is printed.
[OFF]	Date is not printed.

- If the printer does not support date printing, the date cannot be printed on the picture.
- Since the printer's settings may take precedence over the Print With Date setting, check the printer's Print With Date setting as well.
- When printing pictures with characters or dates stamped, if you specify the date print, the date will be overlapped and printed. Set Print With Date to [OFF].

[Num.of prints]

You can set the number of prints up to 999.

[Paper Size]

Item	Description of settings
🖶	Settings on the printer are prioritized.
[L/3.5˝ × 5˝]	89 mm × 127 mm
[2L/5˝ × 7˝]	127 mm × 178 mm
[POSTCARD]	100 mm × 148 mm
[16:9]	101.6 mm × 180.6 mm
[A4]	210 mm × 297 mm
[A3]	297 mm × 420 mm
[10 × 15cm]	100 mm × 150 mm
[4˝ × 6˝]	101.6 mm × 152.4 mm
[8˝ × 10˝]	203.2 mm × 254 mm
[LETTER]	216 mm × 279.4 mm
[CARD SIZE]	54 mm × 85.6 mm

- Paper sizes not supported by the printer will not be displayed.

[Page Layout] (Layouts for printing that can be set with this unit)

Item	Description of settings
	Settings on the printer are prioritized
	1 picture with no frame on 1 page
	1 picture with a frame on 1 page
	2 pictures on 1 page
	4 pictures on 1 page

• An item cannot be selected if the printer does not support the page layout.

■ **Layout printing**

When printing a picture several times on 1 sheet of paper

For example, if you want to print the same picture 4 times on 1 sheet of paper, set [Page Layout] to [ ] and then set [Num.of prints] to 4 for the picture that you want to print.

When printing different pictures on 1 sheet of paper

For example, if you want to print 4 different pictures on 1 sheet of paper, set [Page Layout] to [ ] and then set [Num.of prints] to 1 for each of the 4 pictures.

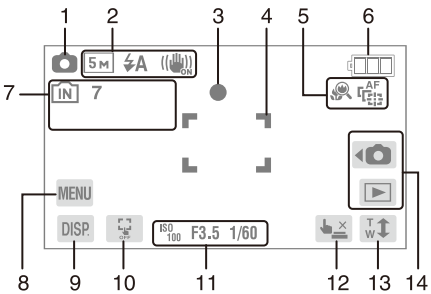
Note

• The camera is receiving an error message from the printer when the [●] indication lights orange during printing. After finishing printing, make sure there are no problems with the printer.
• If the number of prints is high, the pictures may be printed several times. In this case, the remaining number of prints indicated may differ from the number set.

Screen Display

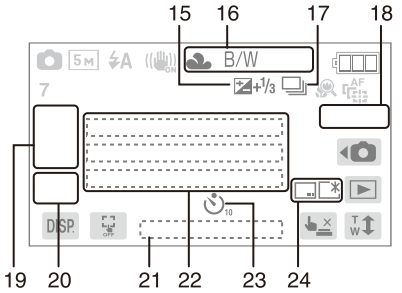
■ **In recording**

Recording in Normal Picture Mode [ ] (Initial setting)



1 Recording Mode
2 Picture size (P76)
Recording quality (P34)
Flash Mode (P51)
Optical Image Stabilizer (P86)
Jitter alert (P28):
3 Focus (P27)
4 AF area (P27)
5 AF Macro (P55)
Macro Zoom (P56)
AF mode (P79)
6 Battery indication (P12)
7 Built-in memory (P16)
Access indication (P17): ,
Number of recordable pictures (P135)
(When the number of recordable pictures exceeds 99999, it is displayed as “+99999” on the screen.)
Available recording time (P136): R00h00m00s
Recording state: ●
8 Menu (P39)
9 DISP. (P47)
10 Touch AF/AE canceled (P30)
11 ISO sensitivity (P77)
Aperture value (P27)
Shutter speed (P27)
12 Touch shutter (P29)
13 Touch zoom (P50)
14 Rec/Playback Mode switch (P20)

■ **In recording (after settings)**



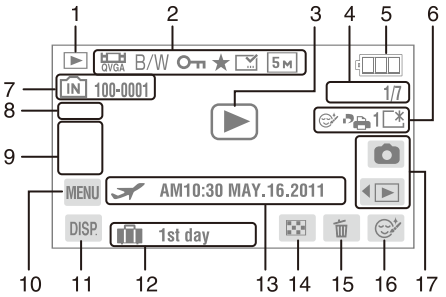
15 Exposure Compensation (P58)
16 White Balance (P78)
Color Mode (P84)
17 Burst (P83)
18 Intelligent Exposure (P82):
AF Assist Lamp (P85):
19 Shortcut area (P41)
20 Elapsed recording time (P34):
00h00m00s*1
21 Zoom / Extended Optical Zoom (P48) / Intelligent Zoom (P49) / Digital Zoom (P49, 83)



22 Current date and time / ✈ : Travel destination setting*2 (P74) / Age*3 (P66) / Name*3 (P66) / Location*2 (P72) / Number of days that have passed since the departure date (P72) / Travel Date*2 (P72)
23 Self-timer Mode (P57)
24 Date stamp (P86)
LCD mode (P43)

*1 “h” is an abbreviation for hour, “m” for minute and “s” for second.
*2 This is displayed for about 5 seconds when the camera is turned on, after setting the clock and after switching from Playback Mode to Recording Mode.
*3 This is displayed for about 5 seconds when this unit is turned on in [Baby1] / [Baby2] or [Pet] in Scene Mode.

■ **In playback**



1 Playback Mode (P31)
2 Recording quality (P34)
Color Mode (P84)
Protected picture (P103)
Favorites (P100)
Stamped with text indication (P96)
Picture Size (P76)
3 Motion picture playback (P36)
4 Picture number / Total pictures
Elapsed playback time (P36):
00h00m00s*
5 Battery indication (P12)
6 Beauty retouched indication (P93)
Number of prints (P114)
LCD mode (P43)
7 Built-in memory (P16)
Cable disconnection warning icon (P111):
Folder / File number (P109)
8 Motion picture recording time (P36): 00h00m00s*
9 Shortcut area (P41)
10 Menu (P39)
11 DISP. (P47)
12 Number of days that have passed since the departure date (P72)
Age (P66)
Recording information
13 Recorded date and time / World Time (P74)
Name (P66)
Location (P72)
Recording information
14 Switching the playback screen (P32)
15 Delete (P37)
16 Beauty Retouch (P93)
17 Rec/Playback Mode switch (P20)

* “h” is an abbreviation for hour, “m” for minute and “s” for second.

Cautions for Use

Keep this unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).

- If you use this unit on top of or near a TV, the pictures and/or sound on this unit may be disrupted by electromagnetic wave radiation.
- Do not use this unit near cell phones because doing so may result in noise adversely affecting the pictures and/or sound.
- Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by microprocessors may adversely affect this unit, disturbing the pictures and/or sound.
- If this unit is adversely affected by electromagnetic equipment and stops functioning properly, turn this unit off and remove the battery or disconnect AC adaptor (optional). Then reinsert the battery or reconnect AC adaptor and turn this unit on.

Do not use this unit near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and/or sound may be adversely affected.

Always use the supplied cords and cables. If you use optional accessories, use the cords and the cables supplied with them.
Do not extend the cords or the cables.

Do not spray the camera with insecticides or volatile chemicals.

- If the camera is sprayed with such chemicals, the body of the camera may be damaged and the surface finish may peel off.
- Do not keep rubber or plastic products in contact with the camera for a long period of time.

Cleaning

Before cleaning the camera, remove the battery or the DC coupler (optional), or disconnect the power plug from the outlet. Then wipe the camera with a dry soft cloth.

- When the camera is very dirty, it can be cleaned by wiping the dirt off with a wrung wet cloth, and then with a dry cloth.
- Do not use solvents, such as: benzine, thinner, alcohol, kitchen detergents, etc., to clean the camera, as it may deteriorate the external case or the coating may peel off.
- When using a chemical cloth, be sure to follow the accompanying instructions.

About the LCD monitor

- Do not press the LCD monitor with excessive force. Uneven colors may appear on the LCD monitor and it may malfunction.
- If the camera is cold when you turn it on, the picture on the LCD monitor will be slightly darker than usual at first. However, the picture will return to normal brightness when the internal temperature of the camera increases.

Extremely high precision technology is employed to produce the LCD monitor screen. However, there may be some dark or bright spots (red, blue or green) on the screen. This is not a malfunction. The LCD monitor screen has more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. The spots will not be recorded on pictures on the built-in memory or a card.

About the Lens

- Do not press the lens with excessive force.
- Do not leave the camera with the lens facing the sun as rays of light from the sun may cause it to malfunction. Also, be careful when placing the camera outside or near a window.

Battery

The battery is a rechargeable lithium ion battery. Its ability to generate power comes from the chemical reaction that takes place inside it. This reaction is susceptible to the surrounding temperature and humidity. If the temperature is too high or too low, the operating time of the battery will become shorter.

Always remove the battery after use.
- To store or carry the battery, put the removed battery into a plastic bag, avoiding metallic objects (clip, etc.).

If you drop the battery accidentally, check to see if the body of the battery and the terminals are damaged.
- Inserting a damaged battery in the camera will damage the camera.

Bring charged spare batteries when going out.
- Be aware that the operating time of the battery becomes shorter in low temperature conditions such as at a ski resort.
- When you travel, do not forget to bring the battery charger (supplied) so that you can charge the battery in the country that you are traveling in.

Dispose of unusable battery.
- The battery has a limited life.
- Do not throw the battery into fire because it may cause an explosion.
- The unusable battery should be discarded in accordance with battery recycling laws. Call the RBRC hotline at 1-800-822-8837 for information.

Do not allow battery terminals to come into contact with metal objects (such as necklaces, hairpins etc.).
- This can cause short circuiting or heat generation and you may be badly burned if you touch a battery.

Charger

- If you use the battery charger near a radio, the radio reception may be disturbed.
- Keep the charger 1.0 m (3.28 feet) or more away from radios.
- The charger may generate whirring sounds when it is being used. This is not a malfunction.
- After use, be sure to disconnect the power supply device from the electrical outlet. (A very small amount of current is consumed if it is left connected.)
- Keep the terminals of the charger and battery clean.

Card

Do not leave the card where the temperature is high, where electromagnetic waves or static electricity are easily generated or exposed to direct sunlight.
Do not bend or drop the card.

- The card may be damaged or the recorded content may be damaged or deleted.
- Put the card in the card case or the storage bag after use and when storing or carrying the card.
- Do not allow dirt, dust or water to get into the terminals on the back of the card and do not touch the terminals with your fingers.

Notice for when transferring to another party, or disposing of the memory card

- "Format" or "delete" using the camera or a PC will only modify the file management information, and it will not erase the data in the memory card completely.
  It is recommended to physically destroy the memory card or use the commercially available computer data deletion software to completely erase the data in the memory card before transferring to another party or disposing.
  Management of data in the memory card is the responsibility of the user.

About the personal information

If a name or birthday is set for [Baby1] / [Baby2], this personal information is kept in the camera and recorded in the image.

Disclaimer

- Information including personal information may be altered or vanish due to erroneous operation, effect of static electricity, accident, malfunction, repair, or other handlings. Please note in advance that Panasonic is not liable in any way for any direct or indirect damage from the alteration or vanishing of information or personal information.

When requesting a repair, transferring to another party or disposing

- Reset the settings to protect the personal information. (P44)
- If there are pictures stored in the built-in memory, copy them into the memory card (P104) before formatting the built-in memory (P45) as needed.
- Remove the memory card from the camera when requesting a repair.
- Built-in memory and settings may return to factory default when camera is repaired.
- Please contact the dealer where you purchased the camera or your nearest Service Center if above operations are not possible due to malfunction.

When transferring to another party, or disposing of the memory card, please refer to "Notice for when transferring to another party, or disposing of the memory card" on P122.

When not using the camera for a long period of time

- Store the battery in a cool and dry place with a relatively stable temperature: [Recommended temperature: 15 °C to 25 °C (59 °F to 77 °F), Recommended humidity: 40%RH to 60%RH]
- Always remove the battery and the card from the camera.
- If the battery is left inserted in the camera, it will discharge even if the camera is turned off. If the battery continues to be left in the camera, it will discharge excessively and may become unusable even if charged.
- When storing the battery for a long period of time, we recommend charging it once a year. Remove the battery from the camera and store it again after it has completely discharged.
- We recommend storing the camera with a desiccant (silica gel) when you keep it in a closet or a cabinet.

About the picture data

- Recorded data may be damaged or lost if the camera breaks down due to inappropriate handling. Panasonic will not be liable for any damage suffered due to loss of recorded data.

About tripods or unipods

- When you use a tripod, make sure the tripod is stable when this unit is attached to it.
- You may not be able to remove the card or the battery when using a tripod or unipod.
- Make sure that the screw on the tripod or unipod is not at an angle when attaching or detaching the camera. You may damage the screw on the camera if you use excessive force when turning it. Also, the camera body and the rating label may be damaged or scratched if the camera is attached too tightly to the tripod or unipod.
- Read the operating instructions for the tripod or unipod carefully.
- Some tripods or unipods cannot be attached when the DC coupler (optional) and AC adaptor (optional) are connected.

Message Display

Confirmation messages or error messages will be displayed on the screen in some cases. The major messages are described below as examples.

[This picture is protected]

→ Delete the picture after canceling the protect setting. (P103)

[This picture cannot be deleted] / [Some pictures cannot be deleted]

- Pictures not based on the DCF standard cannot be deleted.
  → If you want to delete some pictures, format the card after saving necessary data on a PC etc. (P45)

[Cannot be set on this picture]

- [Text Stamp] or [Print Set] cannot be set for pictures not based on the DCF standard.

[Not enough space on built-in memory] / [Not enough memory on the card]

- There is no space left on the built-in memory or the card.
  – When you copy pictures from the built-in memory to the card (batch copy), the pictures are copied until the capacity of the card becomes full.

[Some pictures cannot be copied] / [Copy could not be completed]

- The following pictures cannot be copied:
  – When a picture with the same name as the picture to be copied exists in the copy destination. (Only when copying from a card to the built-in memory.)
  – Files not based on the DCF standard.
- Pictures recorded or edited by other equipment may not be copied.

[Built-In Memory Error
Format built-in memory?]

- This message will be displayed when you format the built-in memory on a PC.
  → Format the built-in memory on the camera again. (P45) The data on the built-in memory will be deleted.

**[Memory Card Error
Format this card?]**

- It is a format that cannot be used with this unit.
  → Format the card again with the camera after saving necessary data on a PC etc. (P45)

[Please turn camera off and then on again] / [System Error]

- This message appears when the camera is not operating properly.
  → Turn the camera off and on. If the message persists, contact the dealer or your nearest Service Center.

[Memory card parameter error] / [This memory card cannot be used]

→ Use a card compatible with this unit. (P16)
  – SD Memory Card (8 MB to 2 GB)
  – SDHC Memory Card (4 GB to 32 GB)
  – SDXC Memory Card (48 GB, 64 GB)

[Insert SD card again] / [Try another card]

- An error has occurred accessing the card.
  → Insert the card again.
  → Insert a different card.

[Read Error/Write Error Please check the card]

- It has failed to read or write data.
  → Remove the card after turning the power off. Insert the card again, turn the power on, and try to read or write the data again.
- The card may be broken.
  → Insert a different card.

[Motion recording was cancelled due to the limitation of the writing speed of the card]

- Use a card with SD Speed Class with “Class 6” or higher when recording motion pictures.
- In the event that it stops even after using a “Class 6” card or higher, the data writing speed has deteriorated so it is recommended to make a backup and then format (P45). Depending on the type of card, motion picture recording may stop in the middle.

[This card is not formatted with this camera, and not suitable for movie recording.]

- The writing speed is lower if the card has been formatted using a PC or other equipment. As a consequence, motion picture recording may stop in the middle. If this happens, make a backup of the data and format (P45) the card in this unit.

[A folder cannot be created]

- A folder cannot be created because there are no remaining folder numbers that can be used. (P109)
  → Format the card after saving necessary data on a PC etc. (P45)

[Picture is displayed for 4:3 TV] / [Picture is displayed for 16:9 TV]

- The AV cable is connected to the camera.
  → Select [TV Aspect] in the [Setup] menu if you want to change the TV aspect. (P44)
- The USB connection cable is connected to the camera only. This message will disappear when the other side of the USB cable is connected to the device.

Troubleshooting

First, try out the following procedures (P127 to P134).

If the problem is not resolved, **it may be improved by selecting [Reset] (P44) on the [Setup] menu when taking pictures.**

Battery and power source

The camera cannot be operated even when it is turned on.

- The battery is exhausted.

The power cuts off during use.

- Battery needs recharging.
- Camera is set to [Auto Power Off]. (P43)
  → Press the Power button to turn the power on again.

The card / battery door cannot be closed.

- Insert the battery securely to the end. (P14)

Recording

The picture cannot be recorded.

- Is the camera in Playback Mode?
  → Touch [ ].
- The lens cover is closed.
  → Open the lens cover.
- Is there any memory remaining on the built-in memory or the card?
  → Delete the pictures which are not necessary to increase the available memory. (P37)

The recorded picture is whitish.

- Dirt such as a fingerprint, etc. is stuck on the lens.
  → Wipe the surface of the lens with a soft, dried cloth lightly.

The area around where the pictures were taken becomes dark.

- Was this picture taken with the flash at the close range when the zoom is near [W] (1×)?
  → Zoom in a little, and then take the pictures. (P48)
- Was this a picture taken in [Pin Hole] in Scene Mode?

The recorded picture is too bright or dark.

→ Check that the exposure is correctly compensated. (P58)

2 or 3 pictures are taken at one time.

→ Set [Hi-Speed Burst] (P67), [Flash Burst] (P68) in Scene Mode or [Burst] (P83) of the [Rec] Mode menu to [OFF].

The subject is not focused properly.

- The focus range varies depending on the Recording Mode.
  → Set to the proper mode for the distance to the subject.
- The subject is beyond the focus range of the camera.
- There is camera shake (jitter) or the subject is moving slightly. (P28)

The recorded picture is blurred. The Optical Image Stabilizer is not effective.

→ The shutter speed becomes slower when pictures are taken in dark places so hold the camera firmly with both hands to take the pictures. (P21)
→ When taking pictures at a slow shutter speed, use the self-timer. (P57)

The recorded picture looks rough. Noise appears on the picture.

- Is the ISO sensitivity high or the shutter speed slow?
  (ISO sensitivity is set to [ ] when the camera is shipped. Therefore, when taking pictures indoors etc. noise will appear.)
  → Decrease the ISO sensitivity. (P77)
  → Set [Color Mode] to [NAT]. (P84)
  → Take pictures in bright places.
- Has [High Sens.] or [Hi-Speed Burst] in the Scene Mode been set? If so, the resolution of the recorded picture decreases slightly because of high sensitivity processing, but this is not a malfunction.

The brightness or the hue of the recorded picture is different from the actual scene.

- If recording under fluorescent light, the brightness or the hue may change slightly when the shutter speed becomes fast. This occurs due to the characteristics of fluorescent light. It is not a malfunction.

While picture-taking or when the shutter button is pressed halfway, a reddish vertical line (smear) appears on the LCD monitor or a part or the whole of the screen has a tinge of red.

- This is a characteristic of CCDs, and it appears when the subject has a bright part. Some unevenness may occur in the surrounding areas, but this is not a malfunction.
  It is recorded in motion pictures but is not recorded on still pictures.
- It is recommended that you take pictures while taking care not to expose the screen to sunlight or any other source of strong light.



Motion picture recording stops in the middle.

- Depending on the type of the card, recording may stop in the middle.
  → Use a card with SD Speed Class with “Class 6” or higher when recording motion pictures.
  → In the event it stops even after using a “Class 6” card or higher, or if you are using a card that has been formatted with a PC or other equipment, the data writing speed has deteriorated. It is recommended to make a backup copy of the data and then format the card with this unit (P45).

AF Tracking does not function.

- If the color of the subject is similar to the background color, the AF Tracking will be difficult to function. Touch the characteristic color part of the subject.

LCD monitor

The LCD monitor sometimes lights off even though the power is on.

- After recording, the monitor lights off until the next picture can be recorded. (Max. approx. 6 seconds when using the built-in memory)

The LCD monitor becomes darker or brighter for a moment.

- This phenomenon appears when you press the shutter button halfway to set the aperture value and does not affect the recorded pictures.
- This phenomenon also appears when the brightness changes when the camera is zoomed or when the camera is moved. This is because of operation of the automatic aperture of the camera, and it is not a malfunction.

The LCD monitor flickers indoors.

- The LCD monitor may flicker for a few seconds after turning the camera on indoors under fluorescent light. This is not a malfunction.

The LCD monitor is too bright or dark.

- [LCD Mode] is activated. (P43)

Black, red, blue and green dots appear on the LCD monitor.

- This is not a malfunction.
  These pixels do not affect the recorded pictures.

Noise appears on the LCD monitor.

- In dark places, noise may appear to maintain the brightness of the LCD monitor. This does not affect the pictures you are recording.

Flash

The flash is not activated.

- Is the flash setting set to [ ]?
  → Change the flash setting. (P51)
- Flash Mode is not available when [Burst] (P83) in [Rec] Mode menu has been set.

Flash is activated several times.

- The flash is activated twice when Red-Eye Reduction (P52) has been set.
- Has [Flash Burst] (P68) in Scene Mode been set?

Playback

The picture being played back is rotated and displayed in an unexpected direction.

- [Rotate Disp.] (P45) is set.

The picture is not played back.
There are no recorded pictures.

- Is the camera in Recording Mode?
  → Touch [▶].
- Is there a picture on the built-in memory or the card?
  → The pictures on the built-in memory appear when a card is not inserted. The picture data on the card appears when a card is inserted.
- The folders or pictures may have been modified using a PC. If it is, it cannot be played back by this unit.
  → If pictures write from the PC into the card, it is recommended to use the “PHOTOfunSTUDIO” bundled software on the CD-ROM (supplied).
- Has [Category Selection] or [Favorite] been set for playback?
  → Change to [Normal Play]. (P31)

The folder number and the file number are displayed as [—] and the screen turns black.

- Is this a non-standard picture, a picture which has been edited using a PC or a picture which was taken by another maker of digital camera?
- Did you remove the battery immediately after picture-taking or did you take the picture using a battery with a low remaining charge?
  → Format the data to delete the pictures mentioned above. (P45)
  (Other pictures will be deleted as well and it will not be possible to restore them. Therefore, check well before formatting.)

With a Calendar Search, pictures are displayed on dates differing from the actual dates on which the pictures were taken.

- Is the clock in the camera set properly? (P18)
- When pictures edited using a PC or pictures taken by other equipment are searched, they may be displayed on dates differing from the actual dates on which the pictures were taken.

White round spots like soap bubbles appear on the recorded picture.

- If you take a picture with the flash in a dark place or indoors, white round spots may appear on the picture caused by the flash reflecting particles of dust in the air. This is not a malfunction. A characteristic of this is that the number of round spots and their position differ in every picture.



Red part of the recorded image has changed color to black.

- While the Digital Red-Eye Correction is used with a flash setting of the Red-Eye Reduction ([ ], [ ], [ ]), if you take a picture of a subject with red color surrounded by skin tone color, the red part may be corrected to black by the Digital Red-Eye Correction function.
  → It is recommended to take the picture with Flash Mode set to [ ], [ ], or [ ], or [Red-Eye Removal] on the [Rec] Mode menu set to [OFF]. (P85)

[Thumbnail is displayed] appears on the screen.

- Is it a picture that has been recorded with other equipment? In such cases, these pictures may be displayed with a deteriorated picture quality.

The operation sound of the camera is recorded in motion pictures.

- The operation sound may be recorded because this camera automatically adjusts the aperture during motion picture recording. This is not a malfunction.

TV, PC and printer

The picture does not appear on the television.

- Is the camera connected to the TV correctly?
  → Set the TV input to External Input Mode.

The display areas on the TV screen and the camera's LCD Monitor are different.

- Depending on the TV model, the pictures may be extended horizontally or vertically or they may be displayed with their edges cut off.

The motion pictures cannot be played back on a TV.

- Are you trying to play back the motion pictures by directly inserting the card in the card slot of the TV?
  → Connect the camera to the TV with the AV cable and then play back the pictures on the camera. (P105)

The picture is not displayed fully on the TV.

→ Check [TV Aspect] setting. (P44)

The picture cannot be transferred when the camera is connected to a PC.

- Is the camera connected to the PC correctly?
- Is the camera recognized by the PC correctly?
  → Set to [PC] in [USB Mode]. (P107)

The card is not recognized by the PC. (The built-in memory is recognized.)

→ Disconnect the USB connection cable. Connect it again while the card is inserted in the camera.

The SDXC Memory Card is not recognized by the PC.

→ Check if your computer supports SDXC Memory Cards.
http://panasonic.net/avc/sdcard/information/SDXC.html
→ Do not format the card if you see the message prompting you to do so when connecting the camera to the PC.
→ If the [Access] on the LCD Monitor does not disappear, turn the camera off, and then disconnect the USB connection cable.

Uploading to the YouTube or Facebook is failed.

→ Check if your log-in information (log-in ID, user name, email address and password) is correct.
→ Connect PC to the internet.
→ Check if the resident software such as Antivirus Software or Firewall, etc. is blocking for accessing to YouTube or Facebook.
→ Also, check the sites of YouTube or Facebook.

The picture cannot be printed when the camera is connected to a printer.

- Pictures cannot be printed using a printer which does not support PictBridge.
- Set to [PictBridge(PTP)] in [USB Mode]. (P111)

The ends of the pictures are cut at printing.

→ When using a printer with a cropping or borderless printing function, cancel this function before printing. (For details, refer to the operating instructions for the printer.)
→ When you order photo studios to print pictures, ask the photo studio if the 16:9 pictures can be printed.

Others

Camera rattles if shaken.

→ This sound is made by the lens movement and is not a fault.

An unreadable language was selected by mistake.

→ Touch the [Setup] menu icon [ ] and then select the [ ] icon to set the desired language. (P46)

A red lamp sometimes turns on when the shutter button is pressed halfway.

- In dark places, the AF Assist Lamp (P85) lights red to make it easier to focus on a subject.

The AF Assist Lamp does not turn on.

- Is [AF Assist Lamp] on the [Rec] Mode menu set to [ON]? (P85)
- The AF Assist Lamp does not turn on in bright places.

The camera becomes warm.

- The surface of the camera may become warm during use. This does not affect the performance or quality of the camera.

The lens clicks.

- When the brightness changes due to zoom or camera movement etc., the lens may click and the picture on the screen may drastically change. However, the picture is not affected. The sound is caused by the automatic adjustment of the aperture. This is not a malfunction.

The clock is reset.

- If you do not use the camera for a long time, the clock may be reset.
  → When the message [Please set the clock] appears, set the clock again. (P18)

When pictures are taken using the zoom, they are slightly distorted and the areas around the subject contain colors which are not actually present.

- It is possible that the subject may be warped slightly, or the borders get colored, depending on the zoom magnification, due to the characteristics of the lens, but this is not a malfunction.

Zooming stops instantaneously.

- When using the Extended Optical Zoom or Intelligent Zoom, the zooming action will stop temporarily. This is not a malfunction.

Zoom does not go up to maximum magnification.

- Is the camera set to Macro Zoom Mode? (P56)
  Maximum zoom during Macro Zoom Mode is 3× digital zoom.

The file numbers are not recorded consecutively.

- When you perform an operation after taking a certain action, the pictures may be recorded in folders with different numbers from the ones used prior to the operation.

File numbers have jumped backwards.

- If the battery was inserted or removed without first turning the camera's power off, the folder and file numbers for the pictures taken will not be stored in the memory. When the power is then turned back on and pictures are taken, they may be stored under file numbers which should have been assigned to previous pictures.

A different thing gets selected from what you touched.

→ Perform the calibration. (P46)

When the camera is left alone, the slide show is suddenly displayed.

- This is the [Auto Demo] to introduce the features of the camera.

Number of Recordable Pictures and Available Recording Time

- The number of recordable pictures and the available recording time are an approximation. (These vary depending on the recording conditions and the type of card.)
- The number of recordable pictures and the available recording time varies depending on the subjects.

■ Number of recordable pictures



- When the number of recordable pictures exceeds 99999, it is displayed as “+99999” on the screen.

Picture size	Built-in Memory (Approx. 70 MB)	Card		
		2 GB	4 GB	16 GB
16 M (4:3) (DMC-FP7)	11	300	600	2450
14 M (4:3) (DMC-FP5)	13	330	670	2740
5 M (4:3)	26	650	1300	5300
0.3 M (4:3)	410	10050	19940	81340

■ **Available recording time (when recording motion pictures)**



Recording quality setting	Built-in Memory (Approx. 70 MB)	Card		
		2 GB	4 GB	16 GB
	–	10 min 10 s	20 min 30 s	1 h 23 min
	–	21 min 40 s	43 min 10 s	2 h 56 min
	2 min 30 s	1 h 2 min	2 h 4 min	8 h 28 min

- Motion pictures can be recorded continuously up to 2 GB.
  The maximum available recording time for up to 2 GB only is displayed on the screen.

Note

- The number of recordable pictures and the available recording time displayed on the screen may not decrease in order.
- When the setting of web upload is set, the number of recordable pictures and the available time may be decreased.

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